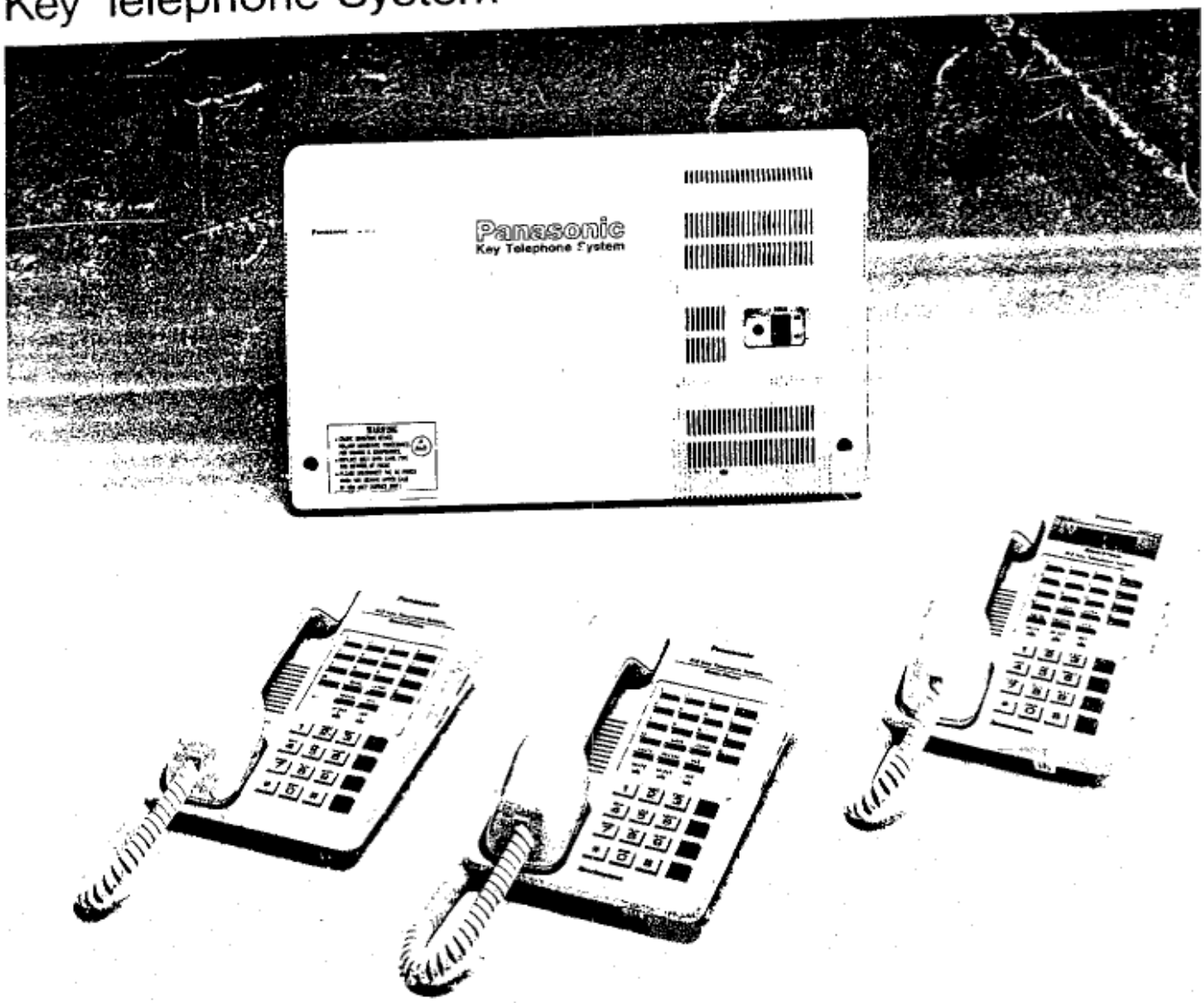
Installation and Programming Manua

Telephone Equipment & Service
www.ntcp.com 254-965-3501

Easa-Phone™
Key Telephone System

VA-41



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CONTENTS

HOW TO FOLLOW THE INSTALLATION PROCEDURE
CAUTIONS ON INSTALLATION
[1] OUTLINE OF SYSTEM
[1].1 System connection layout
[1].2 Modules and system configuration
[1].3 System capacity and specifications
[1].4 Packing materials and exploded views
[2] INSTALLATION OF KEY SERVICE UNIT
[2].1 How to wall mount the key service unit
[2].2 Fuses and backup battery
[3] INSTALLATION OF KEY TELEPHONE
[3].1 Cords and volume control
[3].2 How to wall mount the key telephone
[4] INSTALLATION OF CARDS
[4].1 Types and installation locations
[4].2 Installation of initial cards
[5] WIRING CONNECTIONS
[5].1 Connection between the KSU, KEY TEL and the central office line
[5].2 Type of wires
[6] HOW TO PREPARE WIRING CABLES
[6].1 Wiring cables
[6].2 How to connect the station cord
[6].3 Wiring cables
[7] CONNECTION OF OPTIONAL UNIT
[7].1 Connection diagram
[7].2 External ringer (VA-20863)
[7].3 More than 8 key telephones
[7].4 Single line telephone
[7].5 Doorphone
[7].6 External music on hold source
[7].7 External paging system
PROGRAMMING (EXPLANATION ON PROGRAMMING)
PROGRAMMING CONTENT
[1] GENERAL OPERATION PROCEDURES
[2] PROGRAMMING
[2].1 System
[2].2 COL
[2].3 Key telephone
APPENDIX ..... Programming table for initial set
Feature explanation

HOW TO FOLLOW THE INSTALLATION PROCEDURE

Thank you for purchasing the Panasonic Easa-Phone VA-412, Key Telephone System.
This system can accommodate four central office lines and twelve key telephones. Optional equipment, door box, paging amp and music source can be added for use with the VA-41210.

- Please read this manual carefully before the installation of this system.
- Please follow the installation procedure described below.

1 System Outline
- Outline of the entire system is described.
- Unpack and check the contents according to the Packing Materials.
(See Pages 8 and10)

2 Installation of Key Service Unit
- Install the Key Service Unit on the wall and perform internal adjustments.

3 Installation of Key Telephone
- Volume adjustment and on-wall installation of the Key Telephone are illustrated.

4 Installation of cards
- Install attached various cards into the Key Service Unit.

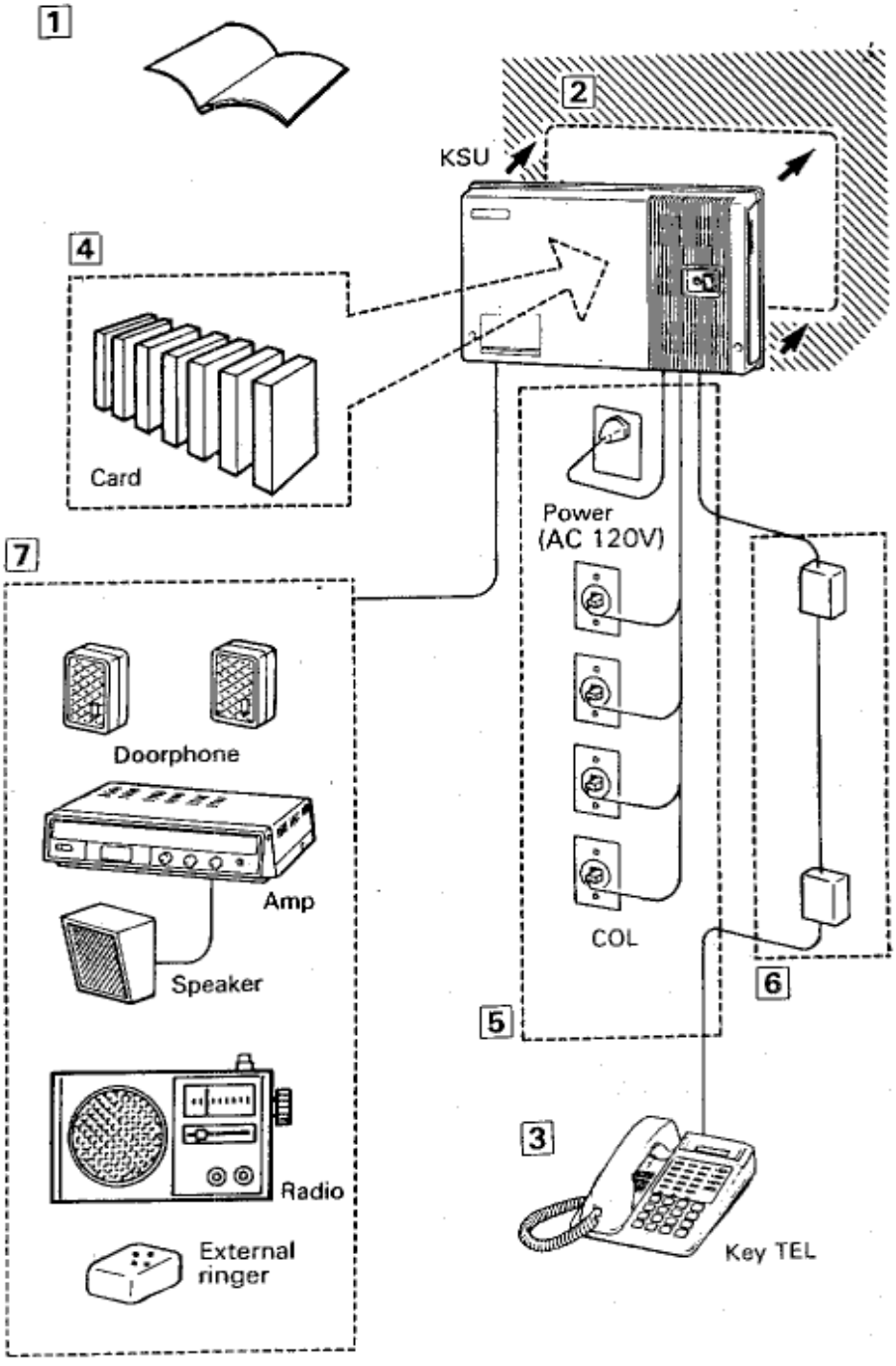
5 Wiring Connections
- Perform connections for the Key Service Unit and the Key Telephones.

6 How to prepare Wiring Cables
- Prepare wiring cables in case optional cords are not sufficient enough in length for making the required wiring connections.

7 Connection of Optional Unit
- Connections of various optional equipments is illustrated.

- So far, the installations required are all complete.
Next, proceed with the programming for setting various functions.

- Now, the system is ready.



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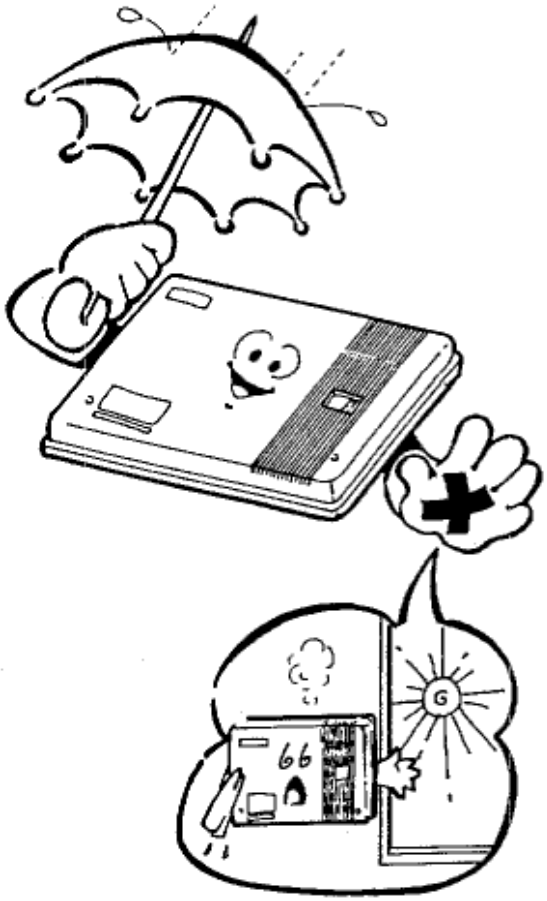
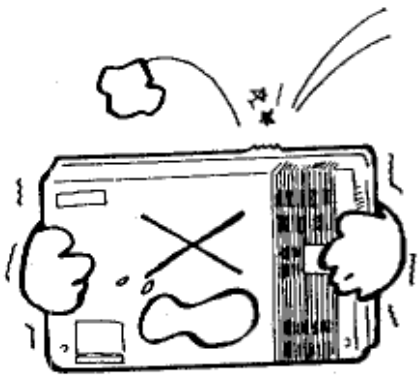
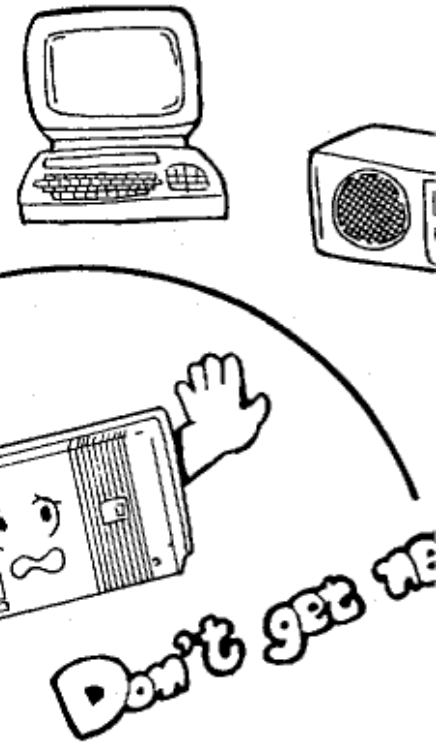
Installation



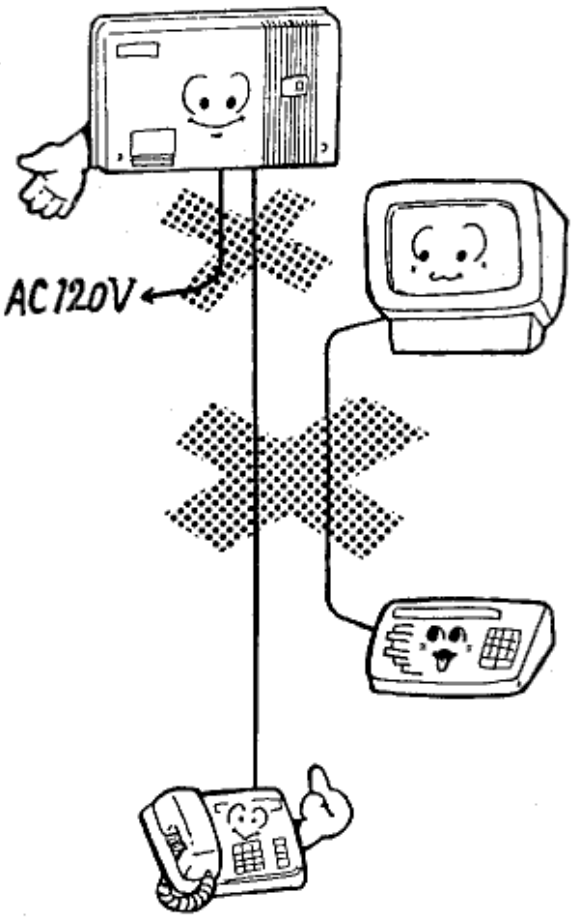


- Avoid installing in the following places. (Doing so
  in malfunction, noise, or discoloration)

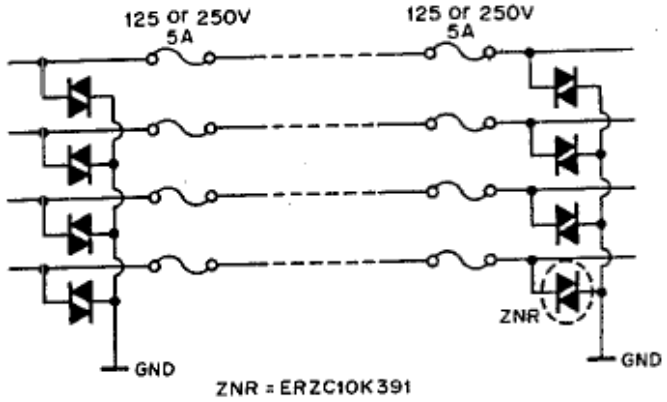
1. In direct sunlight, hot, cold, or humid places. (Te
   range: 32°F – 104°F)
2. Sulfuric gases produced in areas where there ar
   springs, etc. may damage the equipment or contacts.
3. Places in which shocks or vibrations are frequent or
4. Dusty places, or places where water or oil may
   contact with the unit.
5. Near high-frequency sewing machines or electric wel
6. On or near computers, telexs, or other office equ
   well as microwave ovens or air conditioners. (It is
   not to install in the same room with the above equip
7. Near radio broadcast antennas. (including short wave
8. Install at least 6 feet from radios and televisions. (bo
   service unit and key telephones)
9. Do not obstruct area around the key service unit. (
   of maintenance and inspection – be especially carefu
   space for cooling above and at the sides of the k
   unit)



Wiring

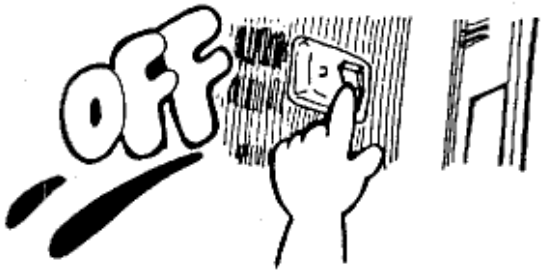


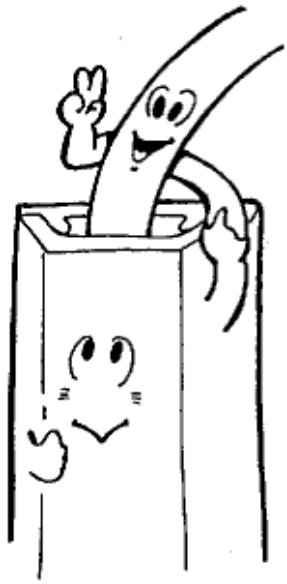
1. Keep the loop wire resistance to the key telephone furthest from the key service unit below 40 ohms. (Max 1100 feet)
2. Always turn off the power before wiring, connecting, and installing or removing cards into and from the key service unit.
3. Do not wire the telephone cable in parallel with the AC power source, computer, telex etc. If the cables run near those wires, shield the cables within metal tubing or use shielded cable and ground the shields.
4. When cables run on the floor, use protectors or the like to protect the wires where they may be stepped on. Avoid wiring under carpets.
5. For wiring outdoors or in the air, connect ZNRs (protective elements) as shown below to protect against lightning surge voltage.



ZNR = ERZC10K391

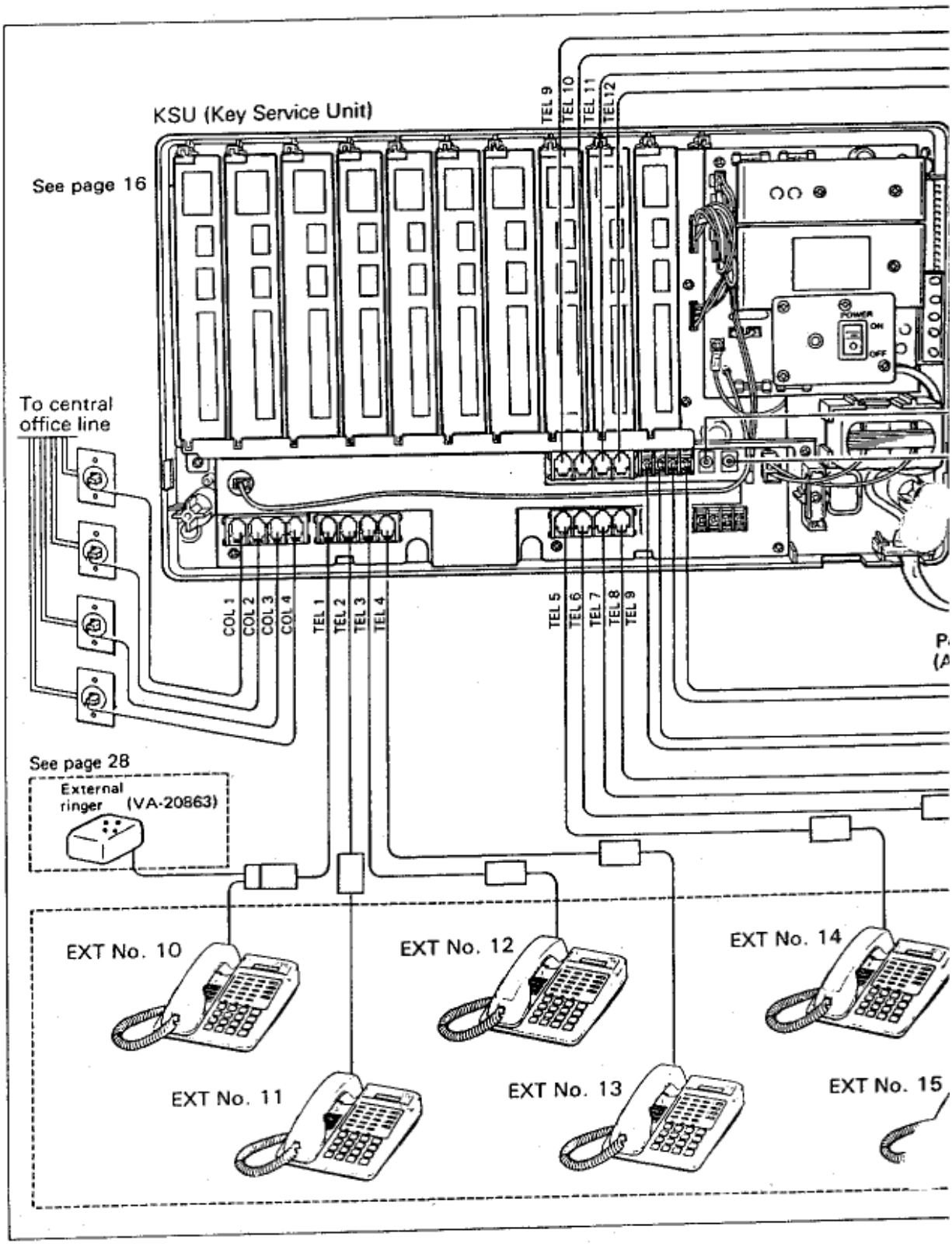
6. Avoid using the same AC 120V power supply outlet for computers, telexs, and other office equipment.
   Otherwise, the VA-412's system operation may be interrupted by the inducted noise from such equipment.

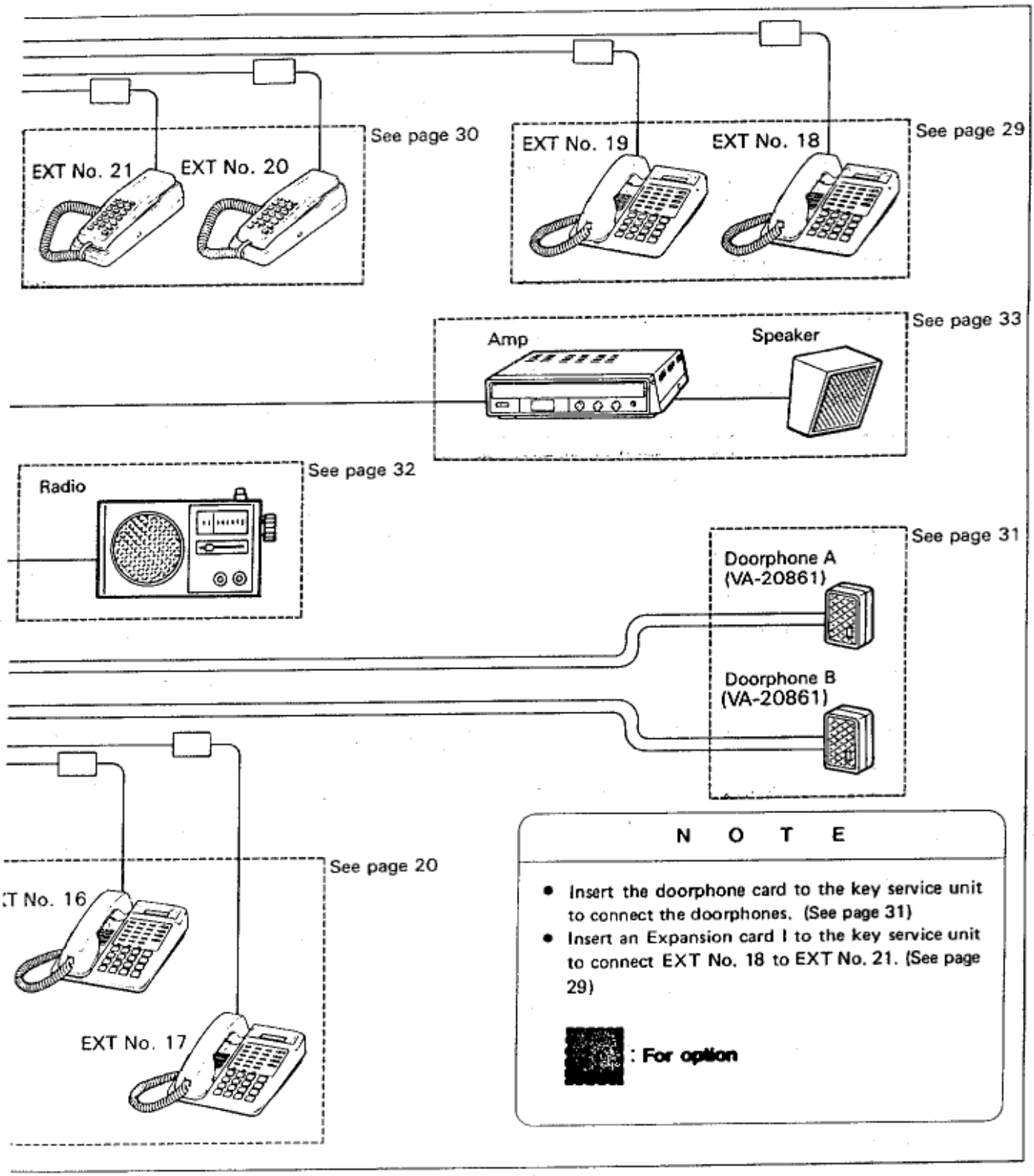




1 1. System connection layout

Full system configuration layout





N O T E

- Insert the doorphone card to the key service unit to connect the doorphones. (See page 31)
- Insert an Expansion card I to the key service unit to connect EXT No. 18 to EXT No. 21. (See page 29)

: For option

1 2. Modules and system configuration

	Model No.	Description	Q'ty System	Refer to Pages:	Note
Key telephone	VA-41210	Key service unit	1	9	For 8 Key telephones
	VA-41220	Standard Key telephone	12	11	
	VA-41221	Key telephone with speakerphone			
	VA-41222	Key telephone with speakerphone and LCD display			
Optional equipment	VA-20842	Expansion card I	2	29	1 pce. for 2 key telep
	VA-20843	Expansion card II		30	1 pce. for 2 single lin
	VA-20860A	Doorphone card	1	31	1 pce. for 2 doorpho
	VA-20861	Doorphone	2	31	
	VA-20863	External ringer	4	28	To be connected to t extensions Nos. 10-1
Installation material	VAX-20880	Short station cord	——	—	
	VAX-20881	Telephone line cord (7 feet)	——	—	
	VAX-20882	Telephone line cord (16 feet)	——	—	
	VAX-20883	Telephone line cord (25 feet)	——	—	
	VAX-20884	Handset cord (7 feet)	——	—	
	VAX-20885	Handset cord (15 feet)	——	—	
	VAX-20886	4-pin connector	——	—	Modular screw termi
	VAX-20887	Magnet for connector	——	—	Used when connecto extension bell are in on metal surface
	VAX-20865	KSU back up battery	1	13	

1 3. System capacity and specifications

System Capacity

COL capacity	4
Intercom speech path	3
Key telephone (Note)	Up to 12 (EXT No. 10 to 21)
Battery backup time during power failure	About 30 minutes (at 2 CO line in use)
System speed dial (Auto dial)	
Individual speed dialer	10 (for each telephone)
Common system speed dialer	90 (for the system)
Number of digits	16 digits/Station (included PBX access code)
Redial	16 digits/Last number and save number

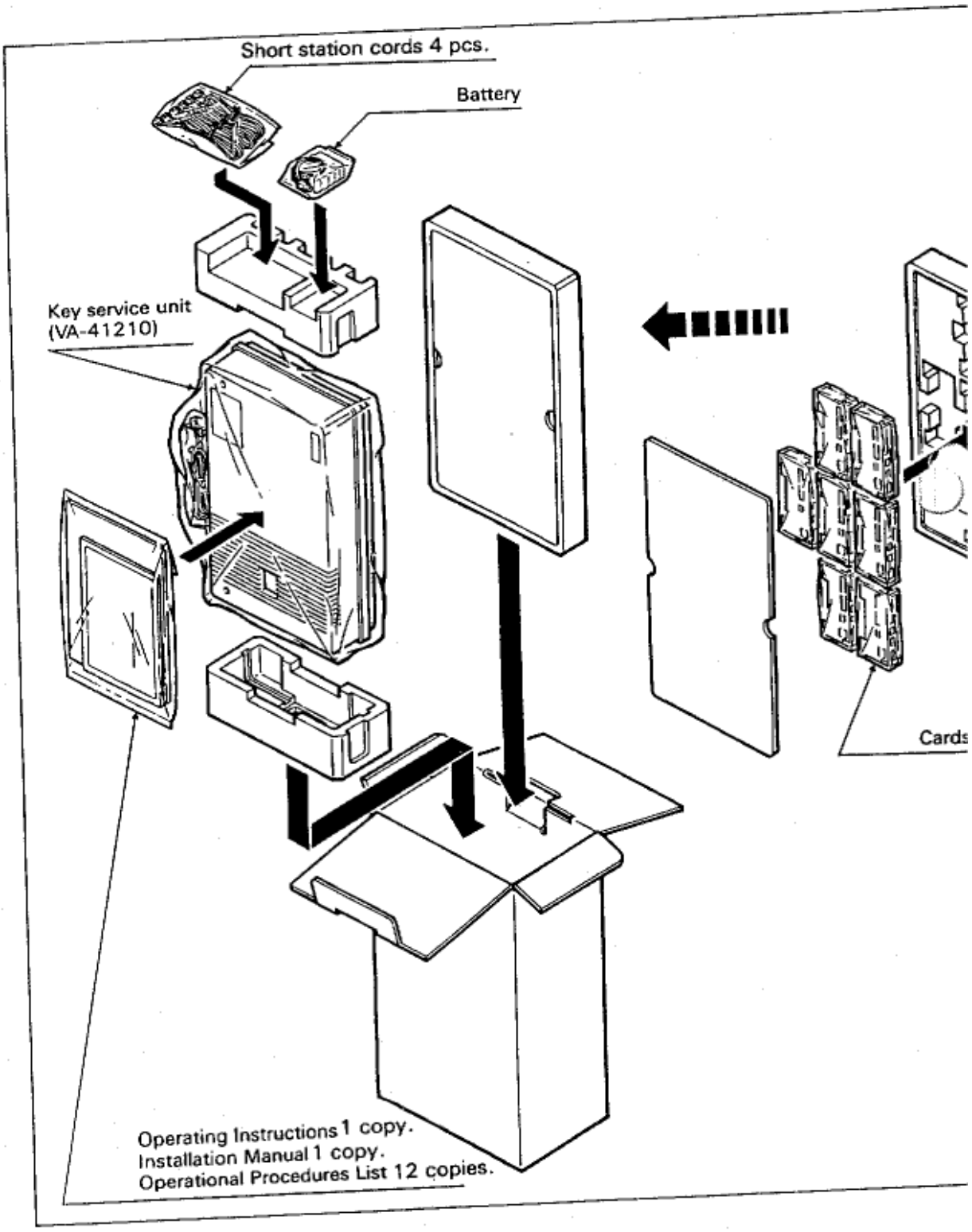
Specifications

Dimension (inch) (Height x Width x Depth) and Weight (pound)	
Key Service Unit	10.4H x 17.9W x 3.9D, 8.8 lb
Key Telephone	6.1H x 3.7W x 8.2D, 2.2 lb
Power consumption (W)	
At standby	Approx. 35
Maximum	Approx. 55

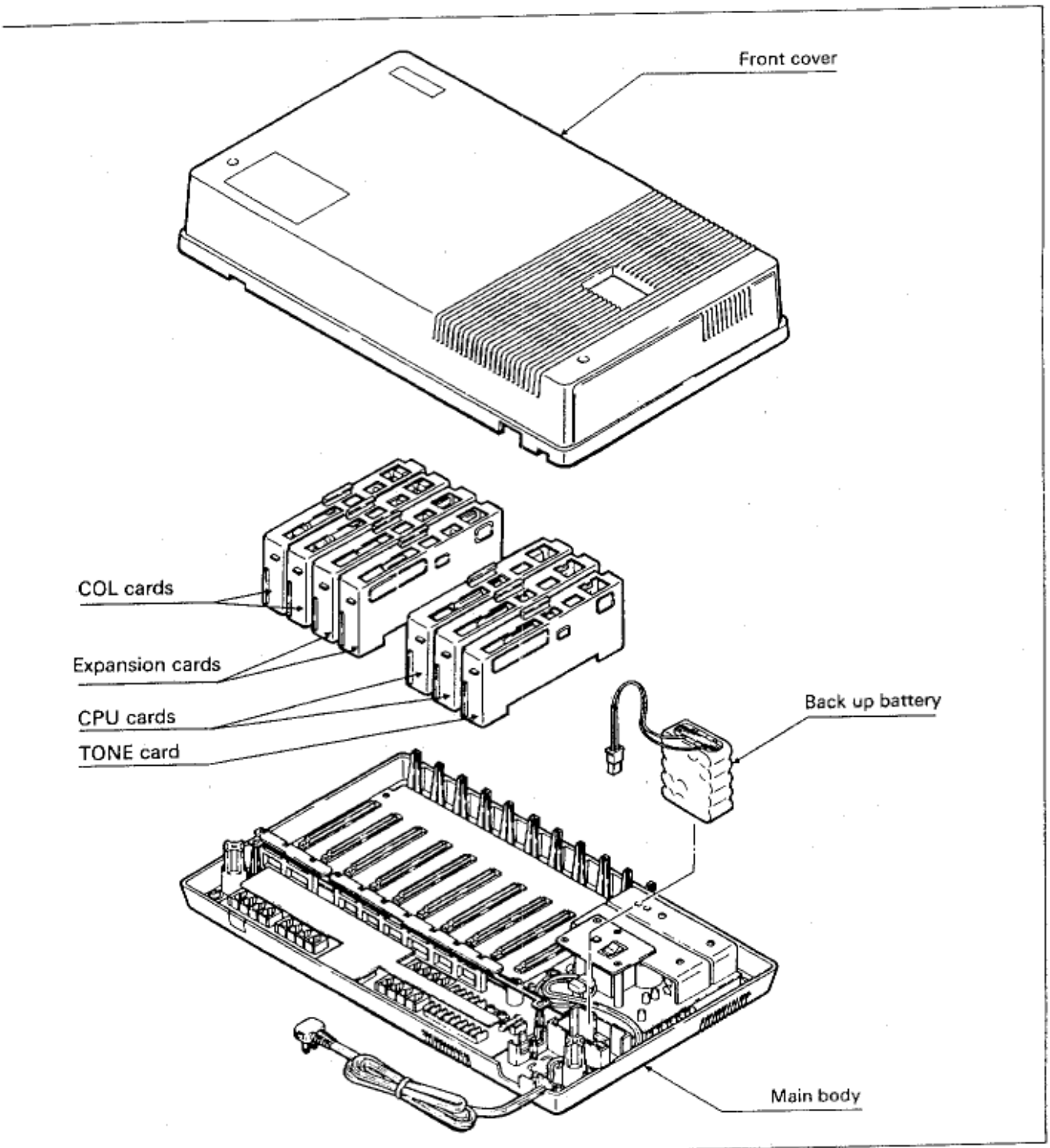
Note: 1. Specifications subject to change without notice.
2. Any of the below combination
   1 12 Key telephones
   2 10 Key telephones & 2 single line telephones
   3 8 Key telephones & 4 single line telephones

1 4. Packing materials and exploded views

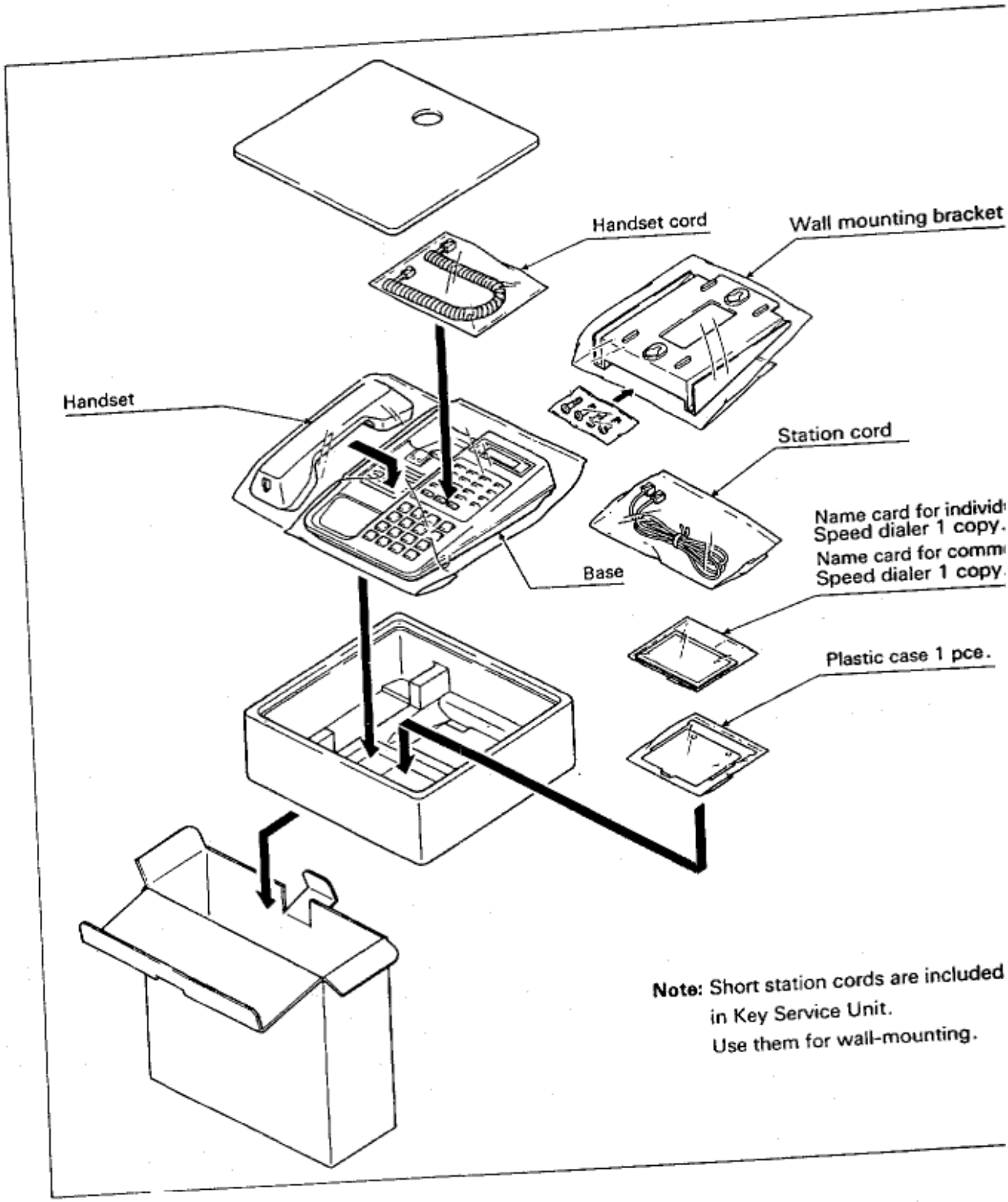
■Packing materials (Key service unit)



■Exploded view (Key service unit)

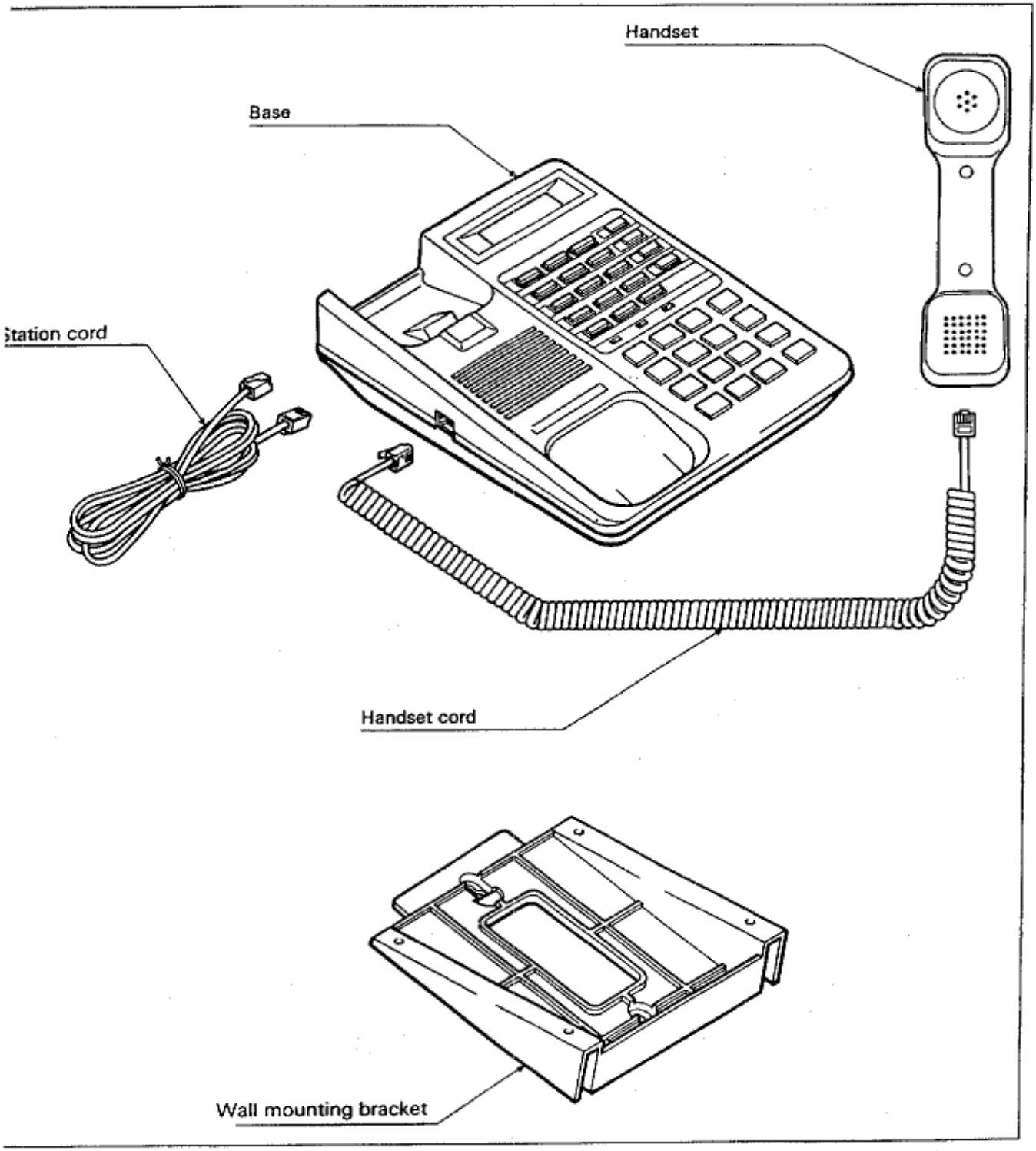


■Packing materials (Key telephone)



Note: Short station cords are included in Key Service Unit.
Use them for wall-mounting.

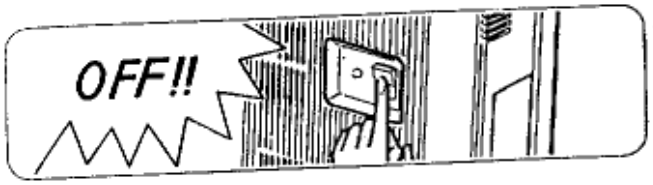
■ Exploded view (Key telephone)



2 INSTALLATION OF KEY SERVICE UNIT

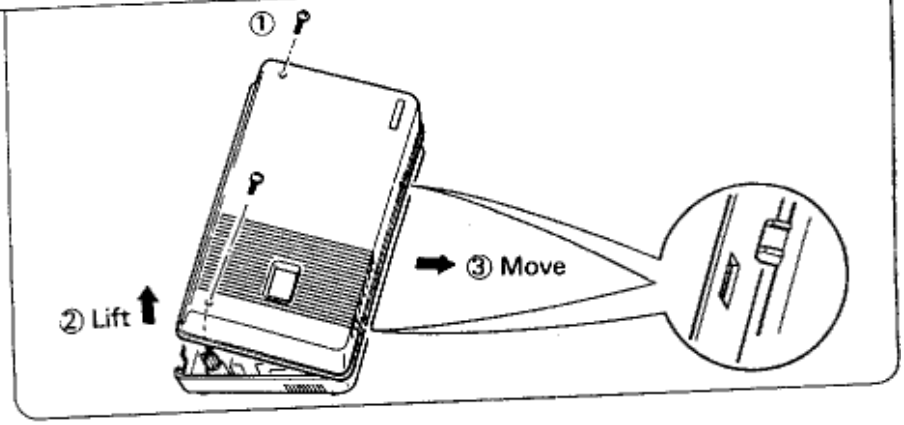
2 1. How to wall mount the Key Service Unit

Be sure the power switch is OFF, before installation.



1 **Remove the front cover from the key service unit.**

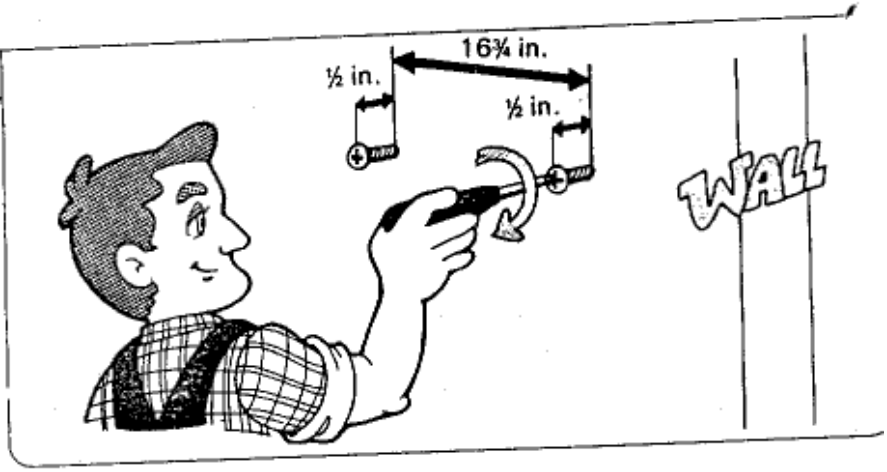
① Remove the two screws.
② Lift the front cover.
③ Move the front cover in the direction of the arrow.



2 **Install wood screws into the wall studs.**

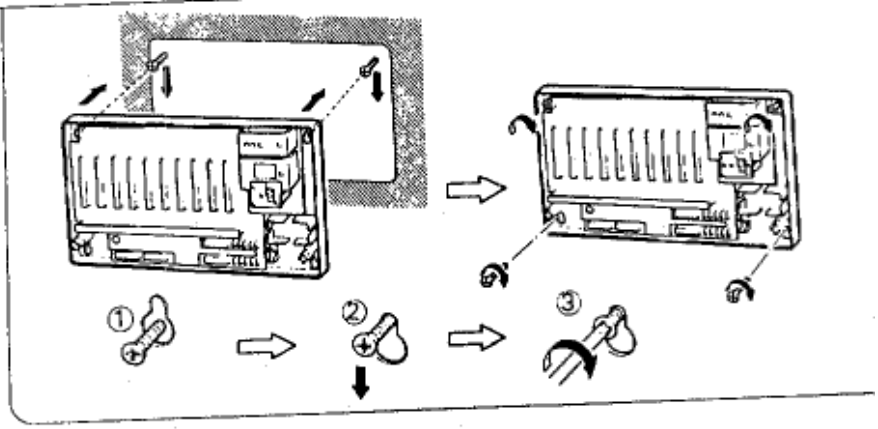
① Place template against wall and mark screw position.

NOTE: Install the wood screws over the "Template for screw installation."



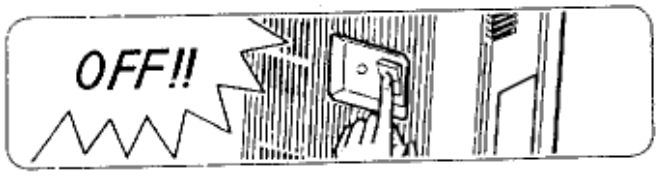
3 **Install the key service unit.**

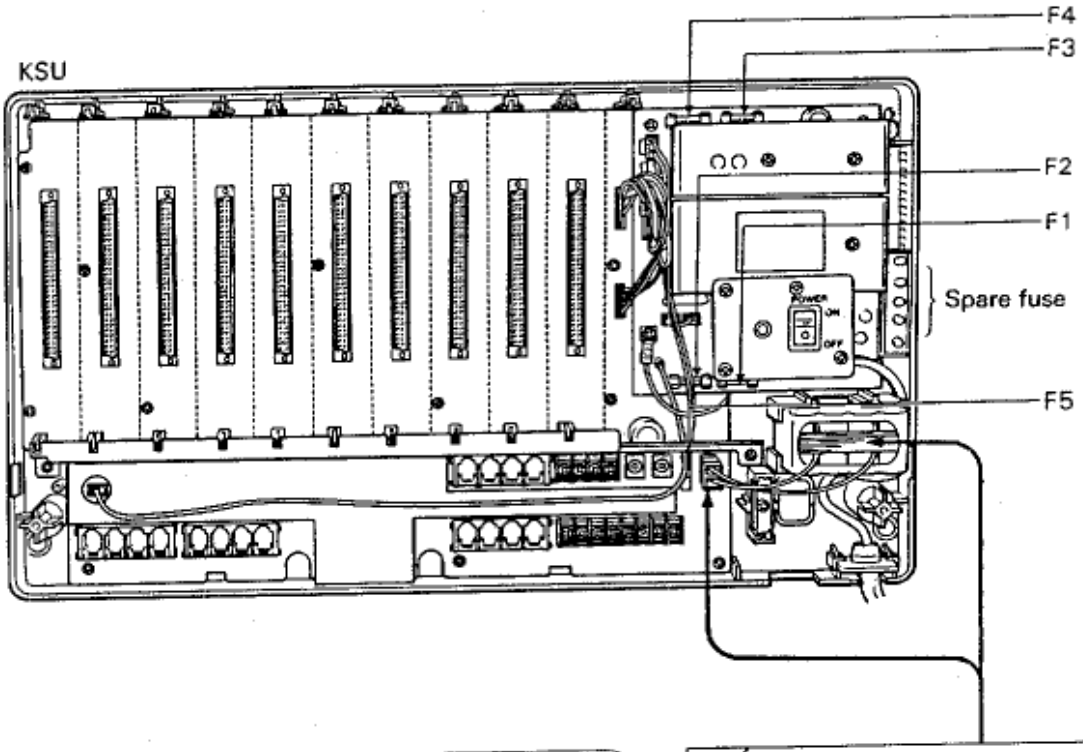
① Mount the key service unit.
② Place the key service unit over the screws and slide down into position.
③ Tighten the four screws completely.



2 2. Fuses and Backup battery

Be sure the power switch is OFF, before installation.





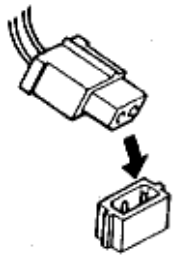
FUSES

F1 (125V, 8A)	AC Line fuse (for lightning protection)
F2 (250V, 2A)	AC Line fuse (system protection)
F3 (250V, 3.15A) . .	DC 5V Line (KSU protection)
F4 (250V, 2A)	DC24V Line (for telephones protection)
F5 (125V, 1A)	For Ni-Cd battery backup

Connection of battery backup.

① Place the battery backup into its storage location.

② Connect the connector of the battery to CN19 of the key service unit.



Note:
- Battery backup time during a power failure is about 30 minutes.
- If the battery is discharged, about 24 hours are required to recharge it.
- Replace the battery every 3 years or so.
- Use the designated replacement battery only.
  Model No. VAX-20865.

3 1. Cords and volume control

Connection of cords

- Connect the handset cord to the handset and to the base unit.
- Connect the modular connector from the KSU, to the base unit.

Receiving volume of handset

- If the receiving volume level of the handset is low, press the VOL button, (the level will increase by approximately 6 dB).
- The volume will automatically reset to the normal level when the handset is returned back on hook.

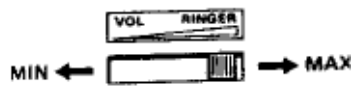
Speaker volume

Monitor Volume Level is adjustable.

Note: When this volume is set to the MIN position, the level is off.

RINGER volume

Incoming ringer volume level i adjustable.



Note: When this volume is se to the MIN position level is off.

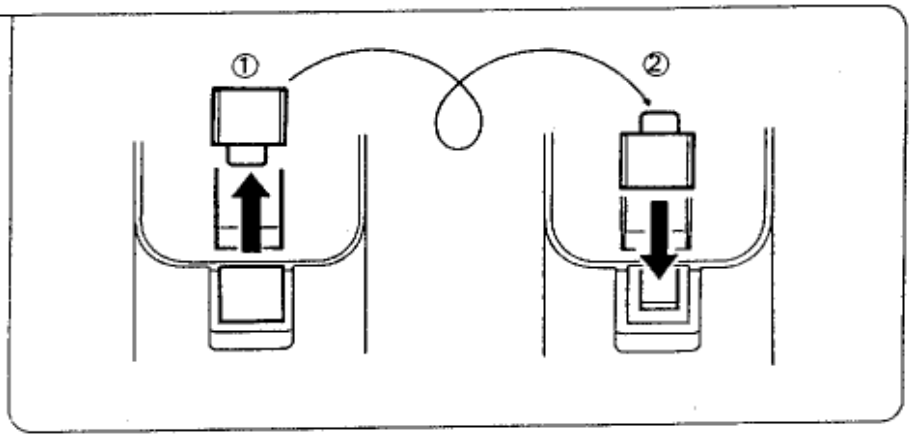
3 2. How to wall mount the key telephone

1

Re-installation of Clip

①Pull the Clip out

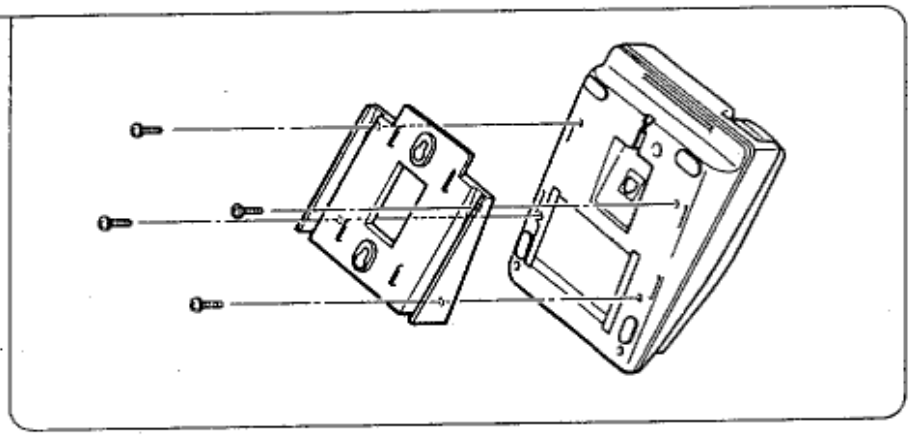
②Reverse its direction and reinsert it into position



2

Wall-mount bracket

Attach the bracket to the bottom plate of the key telephone, by fasten the four screws as illustrated.

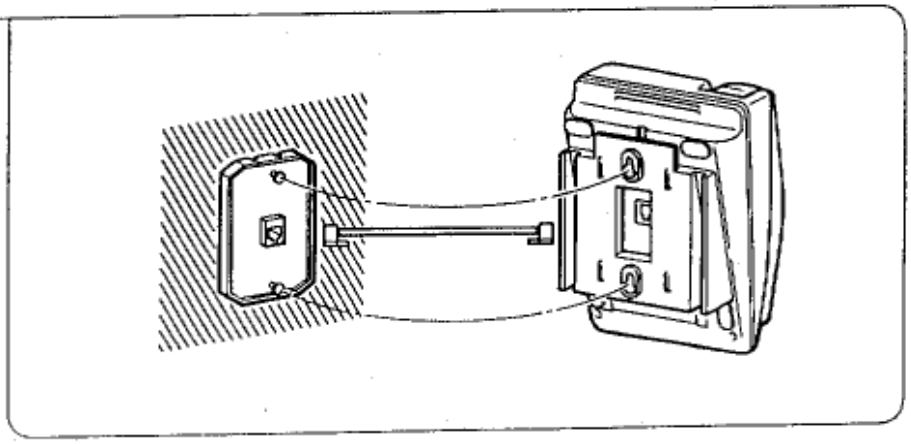


3

Installation to a wall.

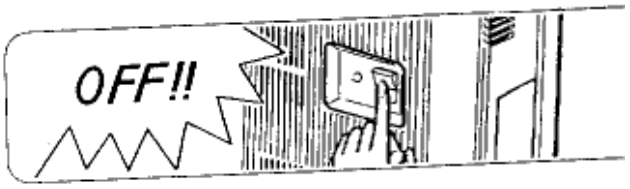
Place the mounting holes of the bracket over the studs of the modular jack and pull the phone downward to secure in place.

Note: Short station cords are provided to attached the key telephone.

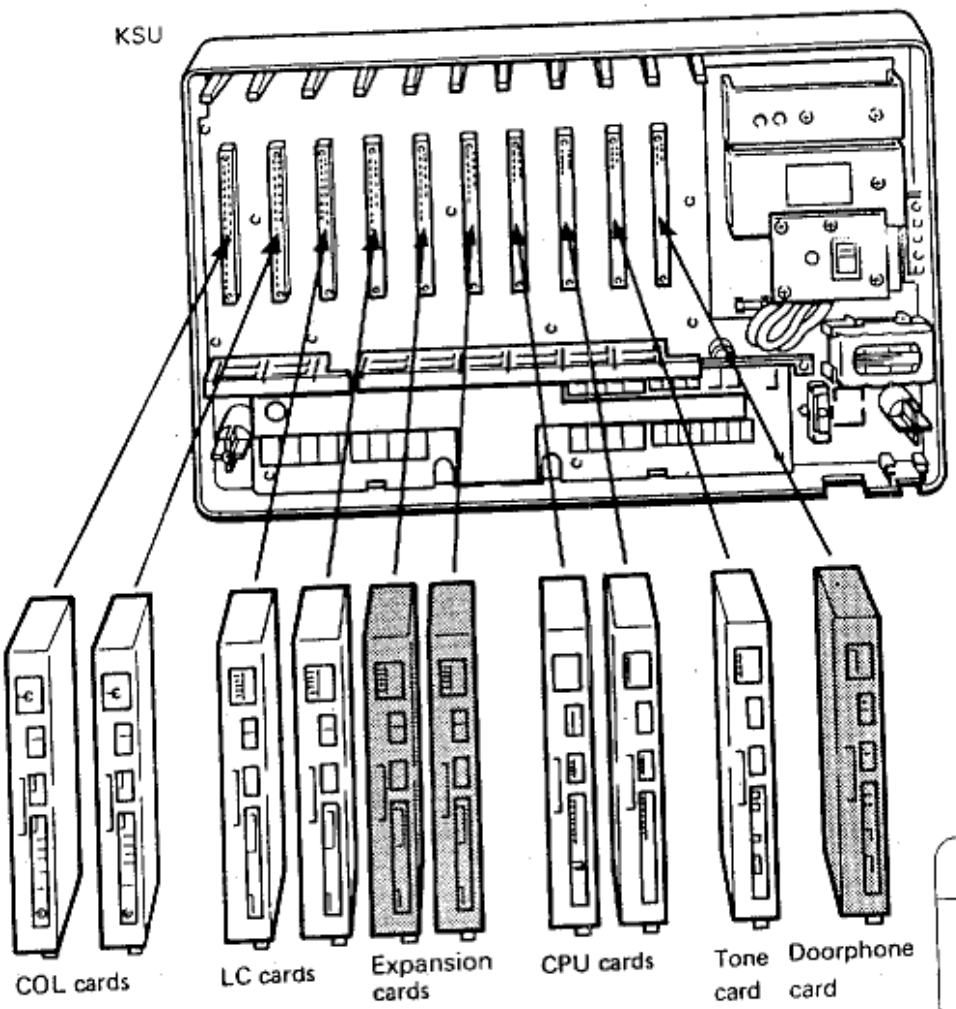


4 1. Types and installation locations

Be sure the power switch is OFF, before installation.

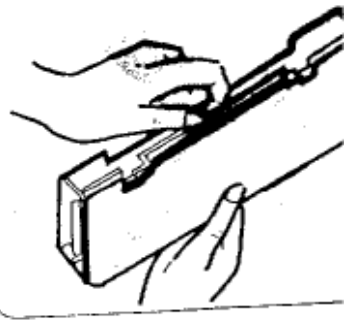


The card locations for the key service unit is shown in the following illustration.
When installing the cards, always refer to the description on Pages 18 and 19 for their correct locations.



N O T E

Card cover must NOT be remov



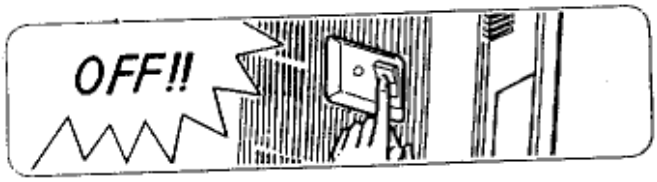
☐ Optional card

Types of cards

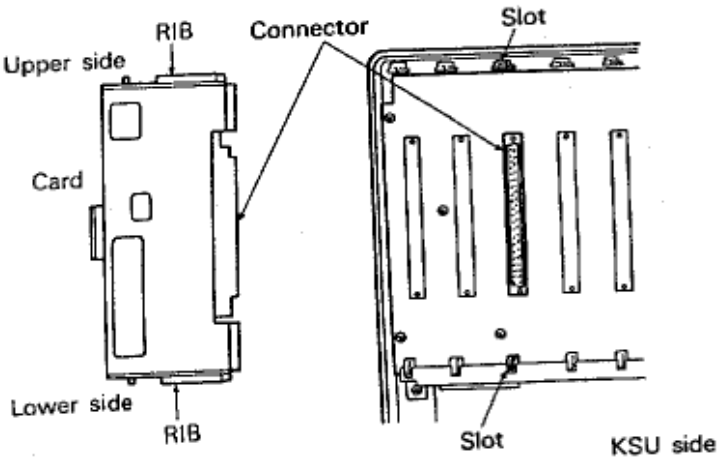
	Cards	KSU Connectors	Description	Refer to Pages:	Notes
Optional	COL Card	COL 1	For central office lines (each card handles up to 2 COL's)	18	
		COL 2			
	LC card	LC 1	For key telephones (each card handles up to 4 telephones)	19	
		LC 2			
	Expansion card I		For up to two additional key telephones	29	VA-20842
	Expansion card II		For up to two single line telephones	30	VA-20843
Initial	CPU 1 Card	CPU-1	For controlling the system operation	18	
	CPU 2 Card	CPU-2			
	Tone Card	TONE	For music on hold, incoming tone, etc.	19	
Optional	Doorphone card	DPH	For two doorphones.	31	VA-20860A

4 2. Installation of initial cards

Be sure the power switch is OFF, before installation.

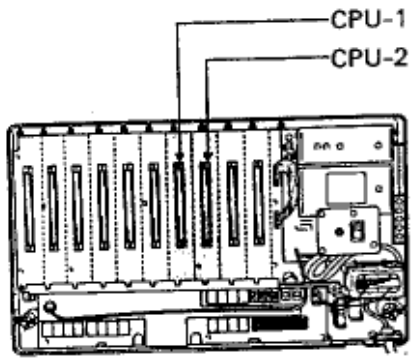


- Place the card in the respective slots so that each rib slides into place.
- Press the card in to secure.



1 CPU cards

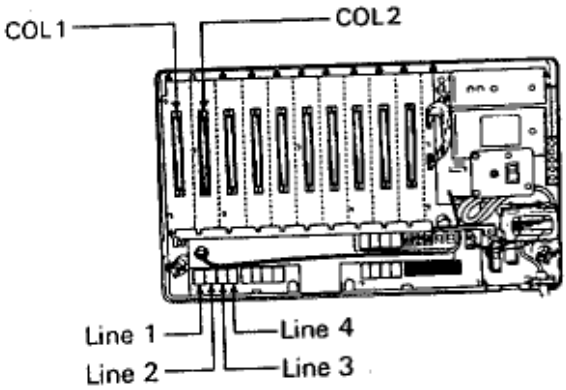
① Install CPU-1 and CPU-2 cards into their respective slots as marked on the KSU.



2 COL cards

① Install each of the two COL cards to their respective slots as marked on the KSU.

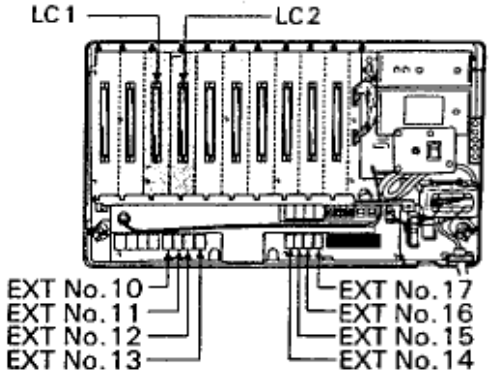
- Each COL card can connect two COLs.
- COL1 card is for Lines 1 and 2.
  COL2 card is for Lines 3 and 4.



3 LC cards

① Install the two LC cards to their respective slots as marked on the KSU.

- Each LC card can connect up to four key telephones.
- LC1 card is for extensions 10, 11, 12 and 13. LC2 card is for extensions 14, 15, 16 and 17.



4 Tone card

① Before installing the Tone card, set the following switches.

- Selection switch for music on hold

EXT ——— INT

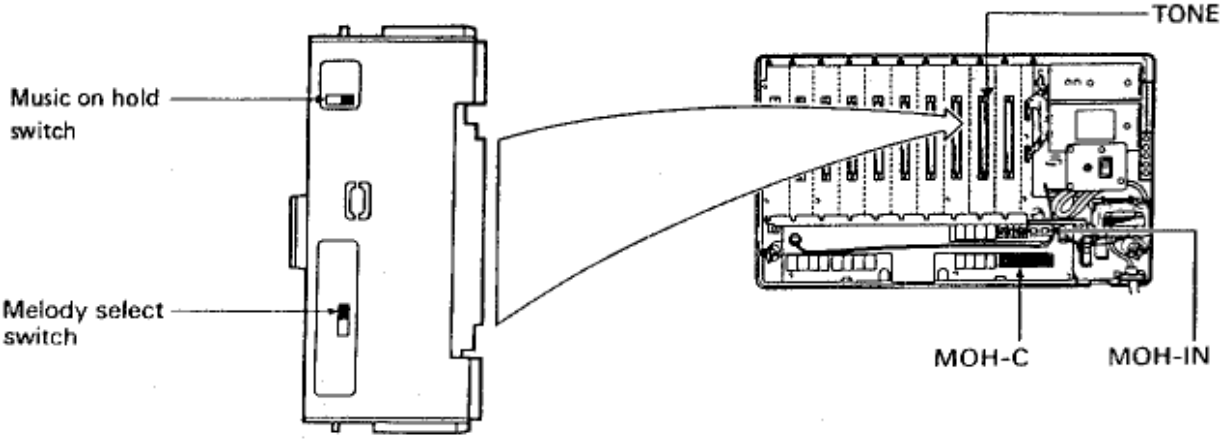
INT: Built-in music on hold (initial position)
EXT: External music on hold.

- Melody of built-in music on hold

A: American Patrol
B: Bridal Doll

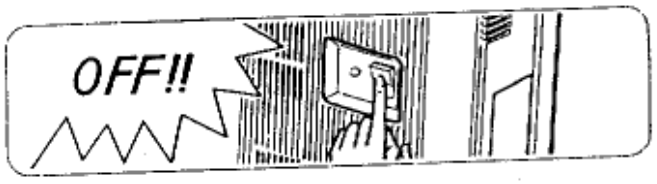
② Install the Tone card to the respective slot.

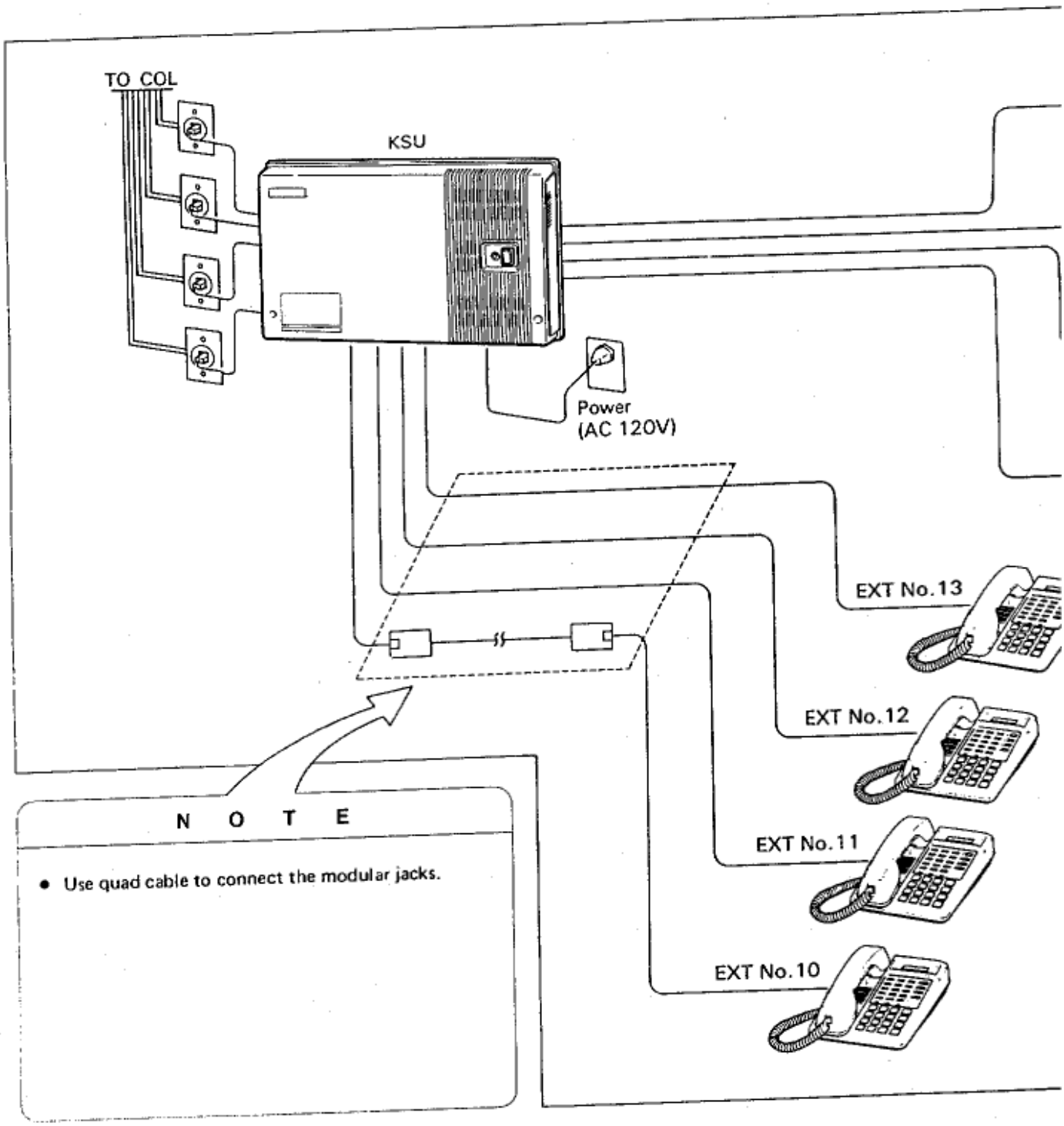
- If an external source is connected:
  MOH-IN: Input terminal (RCA type from an external source)
  MOH-C: For control the external music source.



5 1. Connection between the KSU, KEY TEL and the central office line

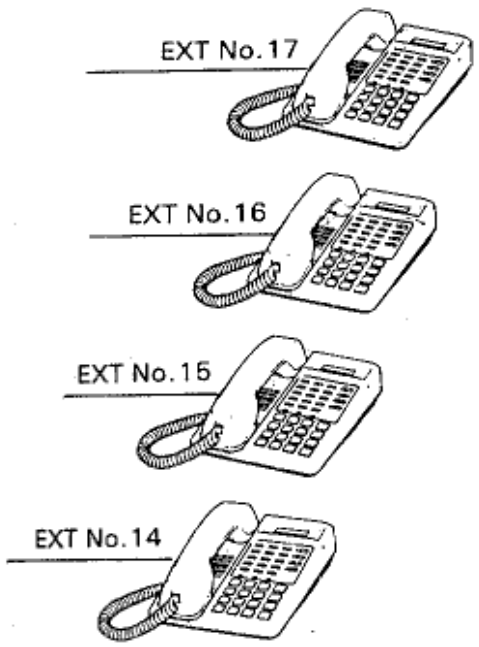
Be sure the power switch is OFF, before installation.





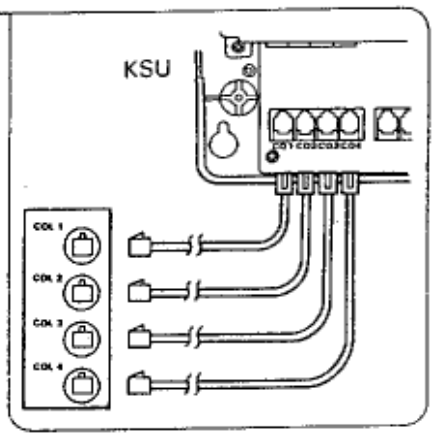
N O T E

- Use quad cable to connect the modular jacks.



1 **Central Office Line connections**

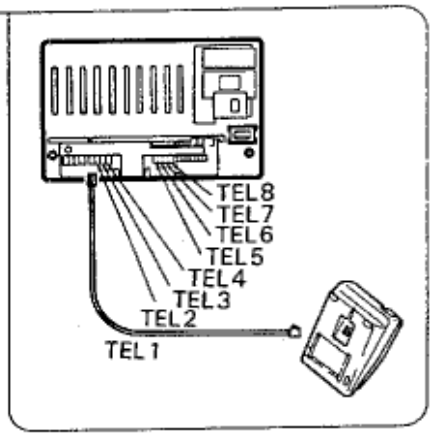
- Connect each telephone line (4 COL's) to each slot labeled COL1 thru COL4 on the KSU to each RJ11 supplied by the telephone company.



2 **Key telephones**

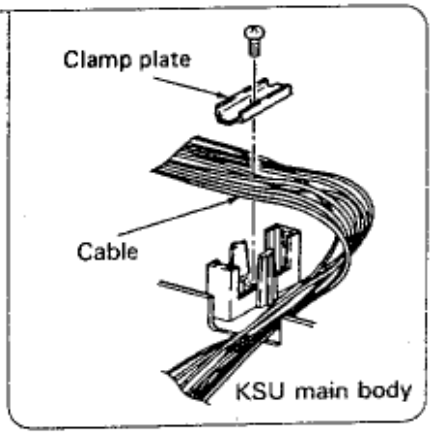
- Connect the wires from the key telephones (EXT No. 10 thru EXT No. 21) to TEL1 thru 12 as marked on the KSU.

Note: Before connecting any EXT, varify that the voltage polarities at the jacks are the same as that at the KSU.

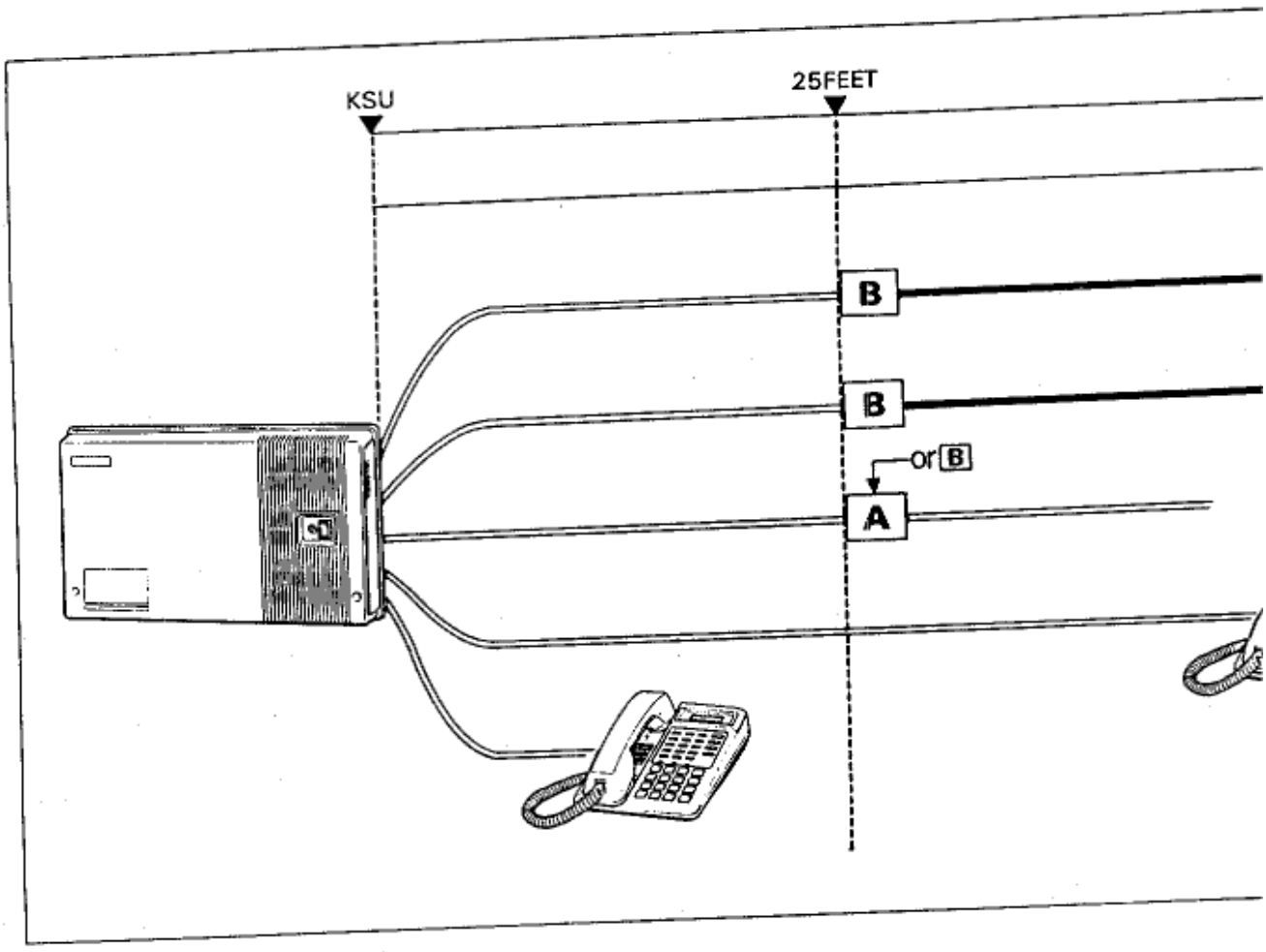


3 **Clamping of cords**

- Remove the clamp plate, insert the cords, then reinstall the clamp plate over the cords and secure into place with the screw.



5 2. Type of wires



• NOTES

A MODULAR CONNECTOR — MODULAR CONNECTOR TERMINAL BOX

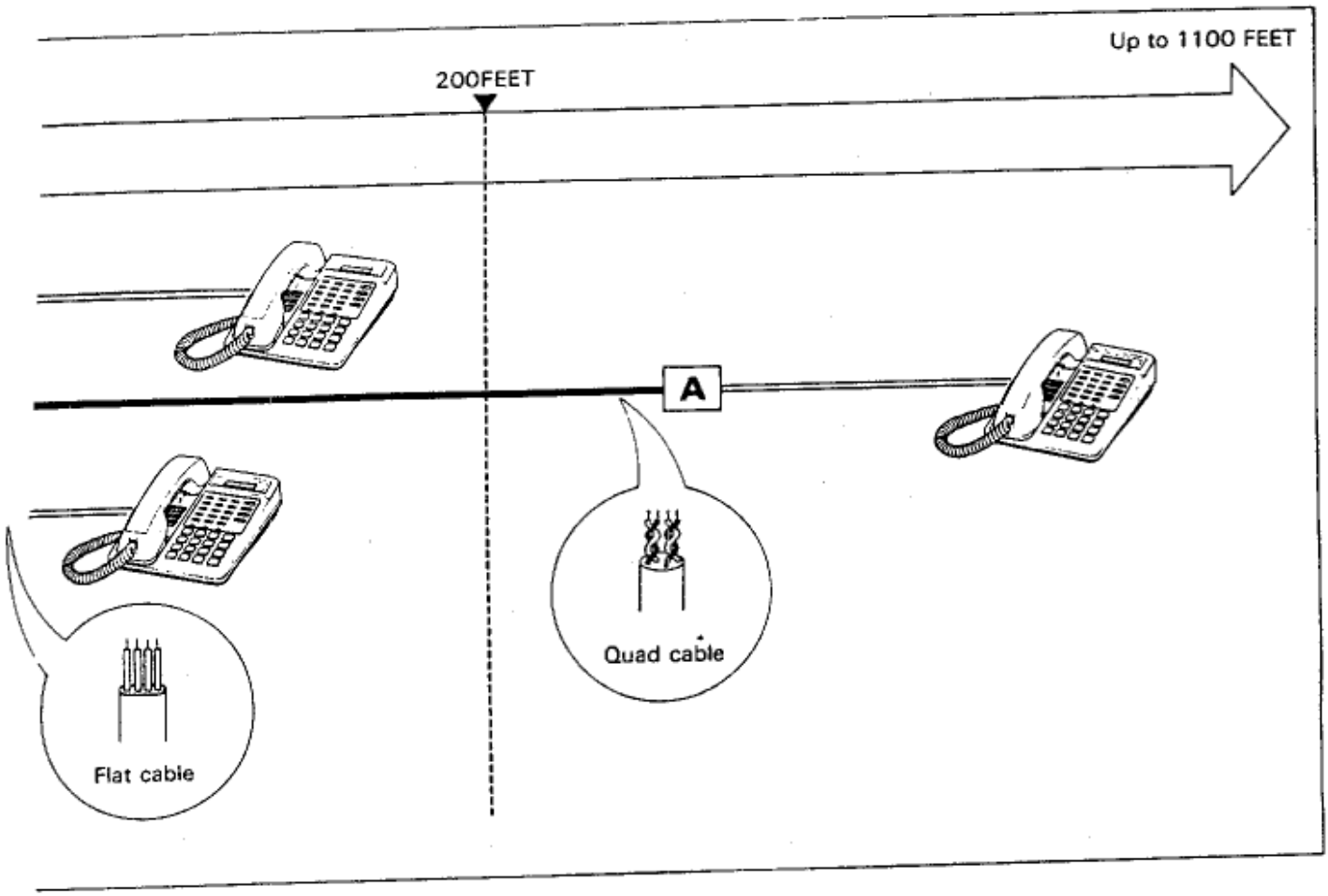
B MODULAR CONNECTOR — SCREW TERMINAL BOX

Flat cable

Quad cable

• When coupling cables, either of the following can be used

Terminal Box	TYPE	A	B (M
	Terminal	Modular — Modular	Modular —
NOTE			Use this type when th and doorphone unit is
COUPLING OF CABLE		Flat cable — Flat cable	Flat cable



CONNECTION OF WIRING CABLE (FOR USE WITH A MODULAR CONNECTOR)

- If the key service unit and the extension are within 25 feet, use the cable supplied (7 feet, 15 feet or 25 feet).
- Station cord and Handset cord
  Depending on the connection and length, 4 types of station cords and 2 types of Handset cords are available.
- If the key service unit and the extension are within 25 to 200 feet, 4 conductor cable can be used by connecting it with a modular terminal.

When the key service unit and the extension are apart by more than 200 feet, use quad cable. Quad cables assure proper operation over long distance than flat cables.
In this case, use connector B (Modular-Screw).

6 1. Wiring cables

Wire obtainable on the market

• **Station cord**

MODEL NO.	LENGTH
VAX-20880	Short station cord(wall-mount only)
VAX-20881	7 feet
VAX-20882	15 feet
VAX-20883	25 feet

• **Handset cord**

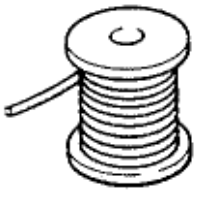
MODEL NO.	LENGTH
VAX-20884	7 feet
VAX-20885	15 feet

Quad cables

- Selecting quad cable depends upon the wiring length.
- Make sure that the quad cables are twisted pair or shielded twisted pair.

Type of Quad Cable	Max. Wiring Length
22 AWG	1100 Feet
24 AWG	700 Feet
26 AWG	450 Feet

Tools required for preparing wiring cables



4 conductor phone quad cable

Modular connector

Cutter

Modular crimping tool

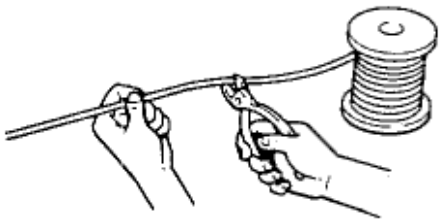
Inline coupler

Quick-connect jack

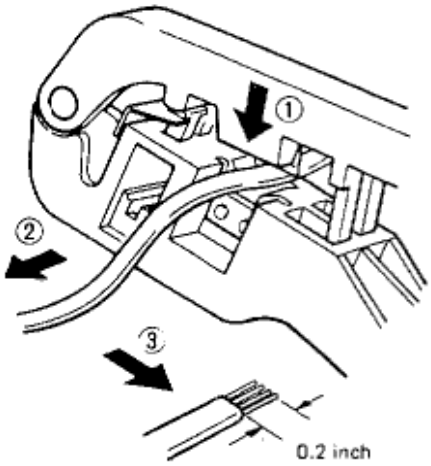
⊕ Screwd

6 2. How to connect the station cord

①Cut the flat cable for the required length.

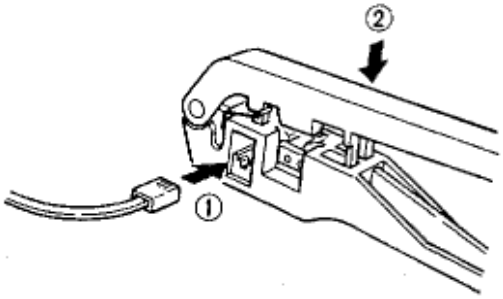


②Remove the outer cable sheathing by Approx.1/4 inch with the modular clipping tool. At this time, leave the inner colored sheathing of the conductor as it is.

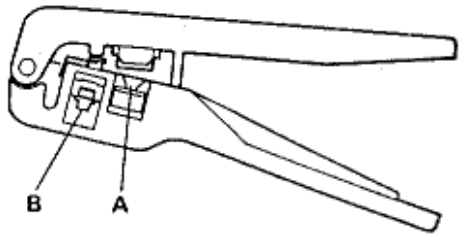


③Place the flat cable into the modular connector.

④Press and connect the terminal with B portion of the modular clipping tool.



Modular clipping tool



Note: When the connections are completed, they will be as shown below.

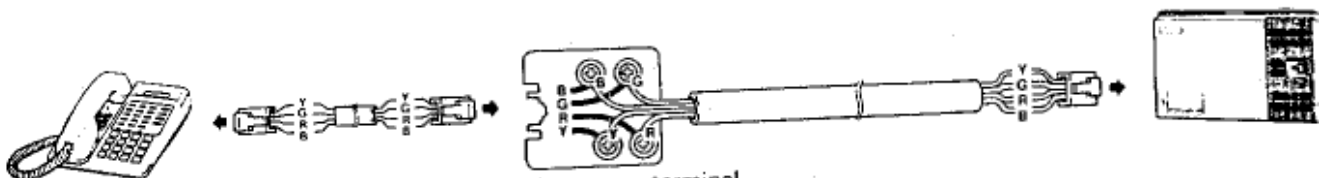
6 3. Wiring cables

- Be sure to connect as follows:

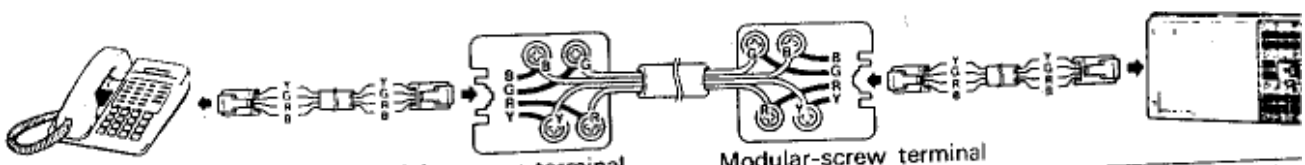
B: BLACK → Outer pins
R: RED → Inner pins
G: GREEN → Inner pins
Y: YELLOW → Outer pins

CASE 1
Connection of modular connector only.
Connections yellow and black wires to outer pins, green and red wires to inner pins.

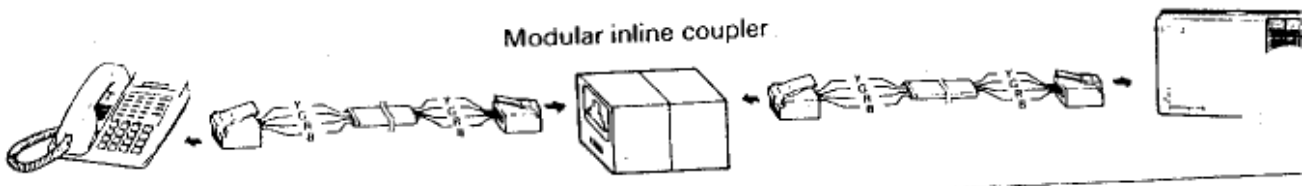
CASE 2
Connection of modular connector and modular-screw terminal.



CASE 3
Connection to modular-screw terminal at both ends.

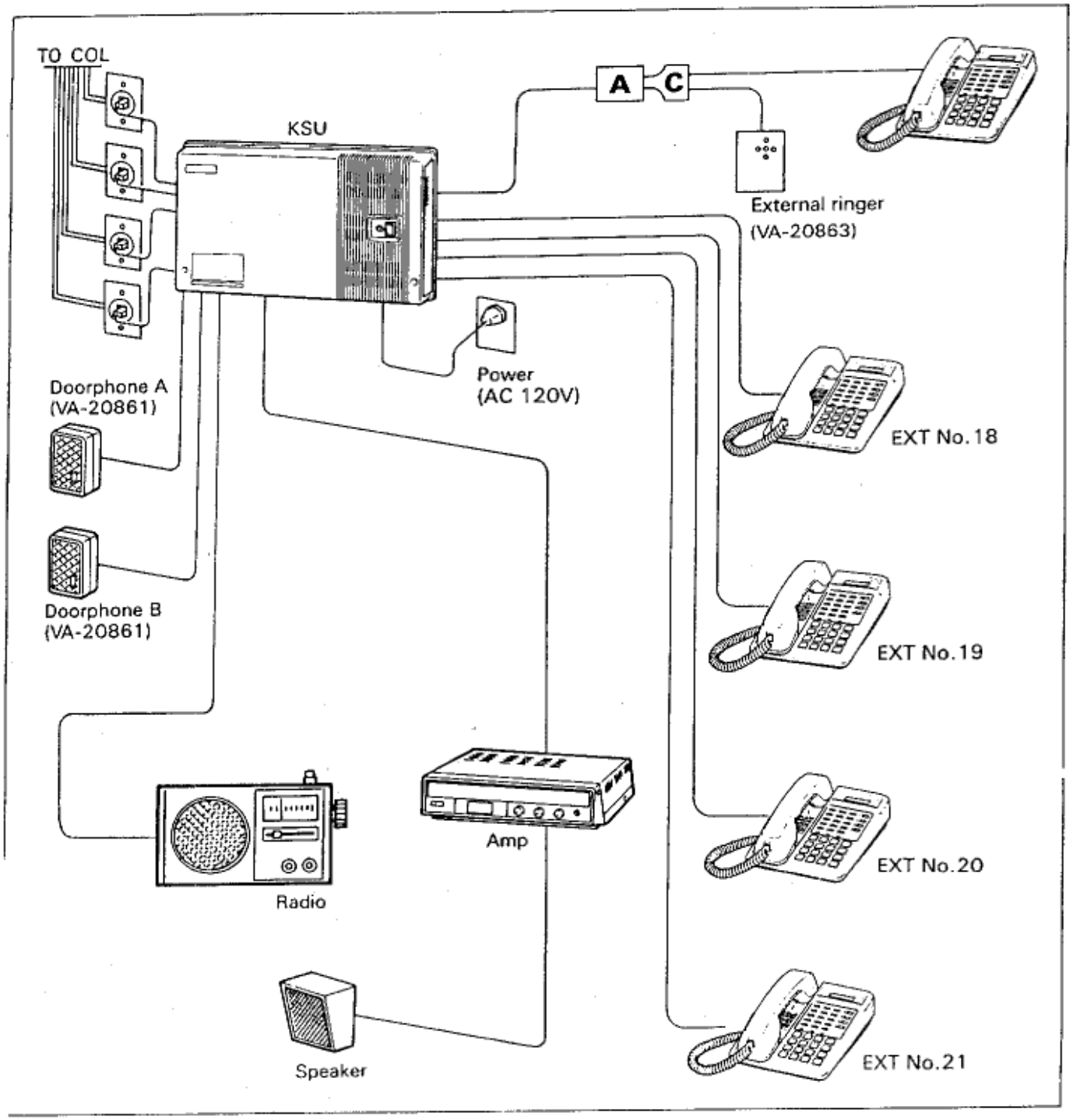


CASE 4
Connection via modular jacks.



7 1.Connection diagram

Before connecting any extension, varify that the voltage polarities at the jack connections of the KSU and the extensions are the same.



[7] 2. External ringer(VA-20863)

External ringers are connected to extensions Nos. 10 thru 13.
In the event of a power failure all trunks will ring at the assigned extensions shown below.

TRUNK 1 – EXT 10
TRUNK 2 – EXT 11
TRUNK 3 – EXT 12
TRUNK 4 – EXT 13

1

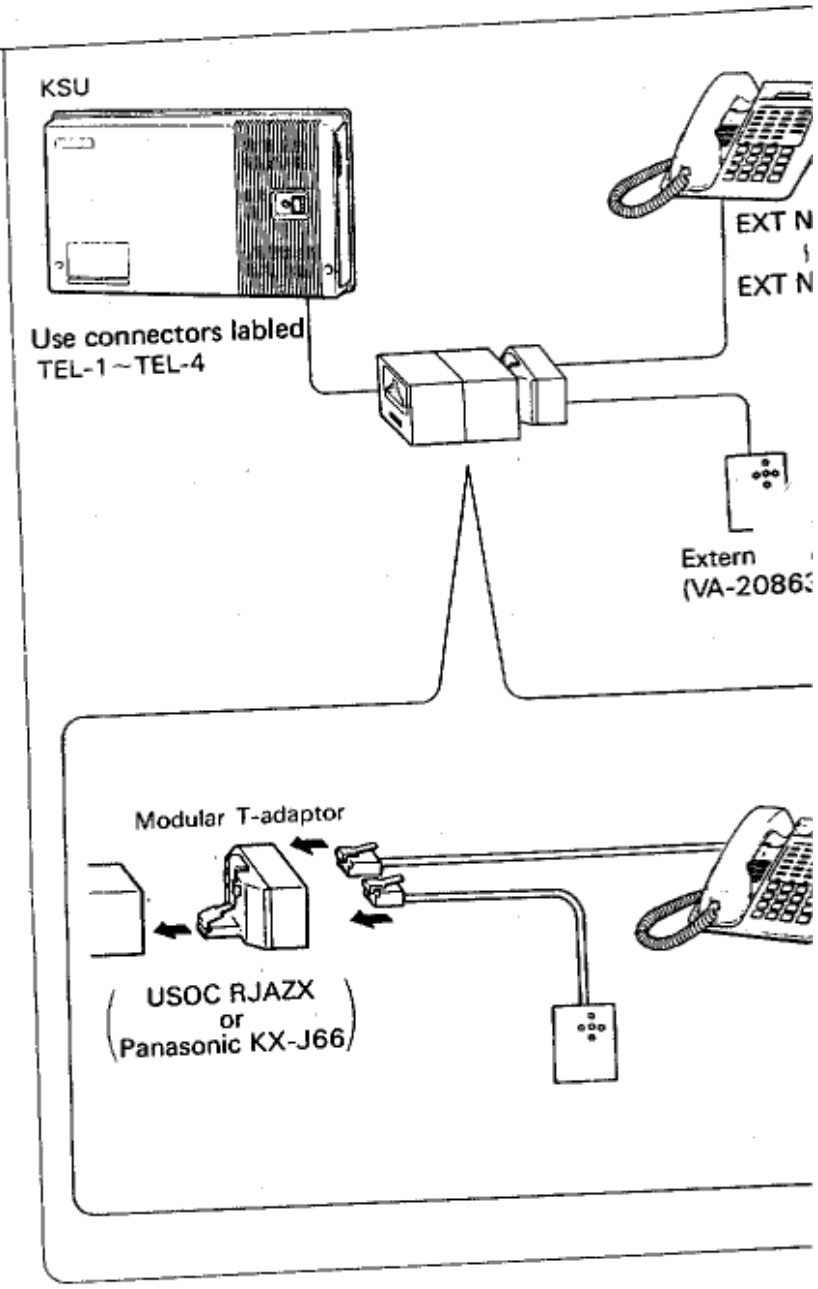
Connection

① Insert the T adaptor plug into the jack plate.

② Insert the T adaptor as shown into the jack.
Insert the modular plug from the key telephone and the external ringer to the T adaptor.

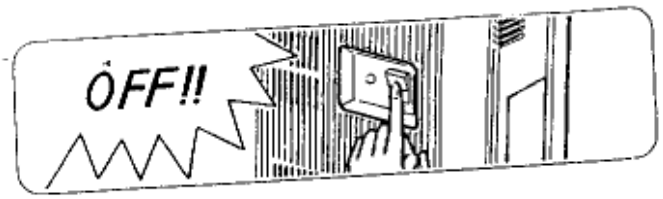
③ Install the external ringer near the key telephone.

Note: The battery will operate all system features for approx 30 minutes.



7 3. More than 8 key telephones

Be sure the power switch is OFF, before installation.

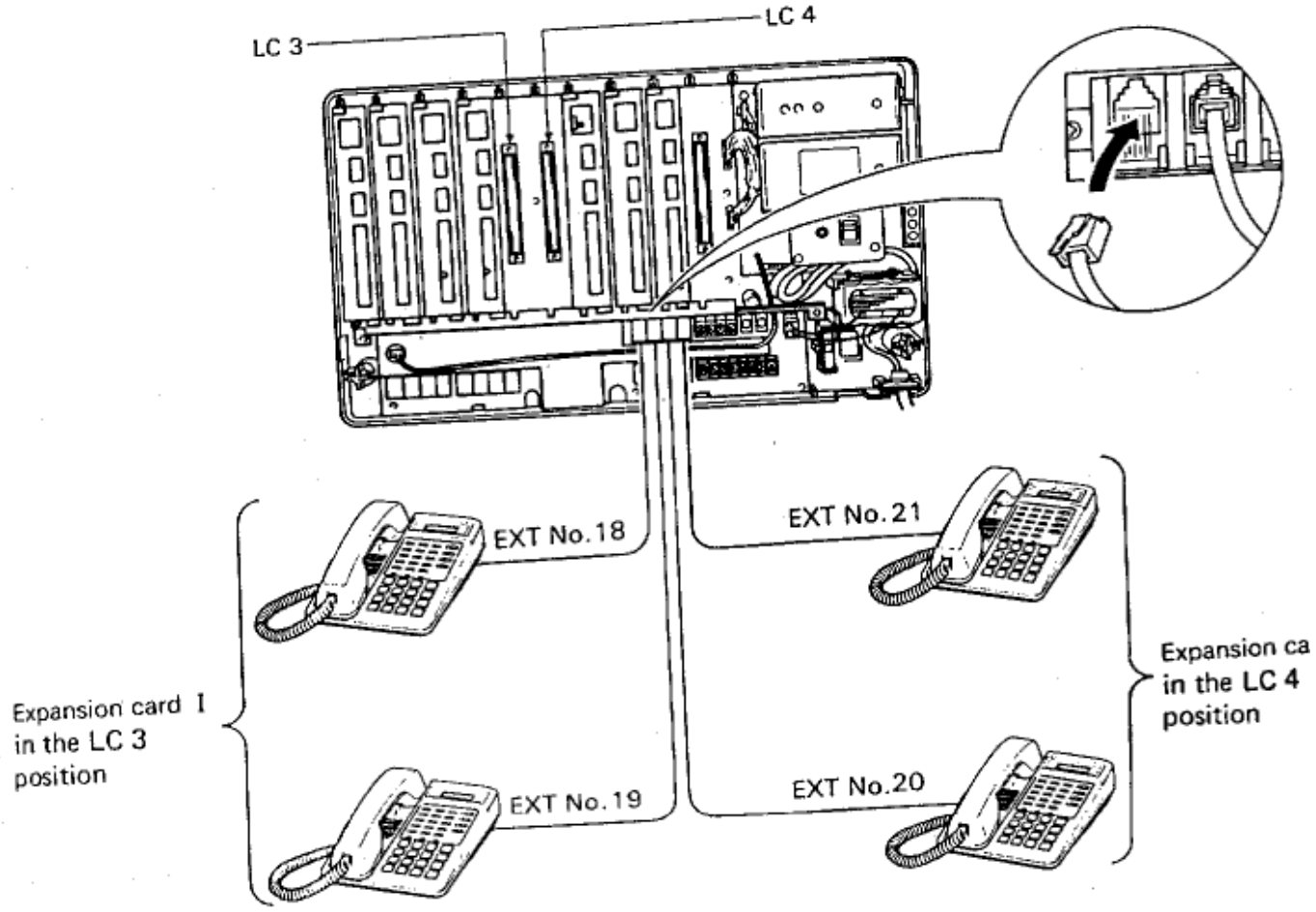


I Expansion card I (VA-20842)

① Install the expansion cards (VA-20842) into the LC3 and LC4 positions.

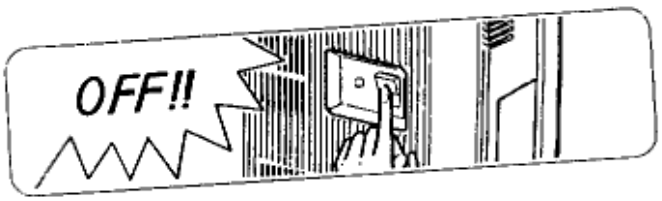
- One card can connect two more key telephones.
- The LC3 and LC4 cards correspond to the extension Nos. as follows:
  LC3 → EXT No. 18 and EXT No. 19
  LC4 → EXT No. 20 and EXT No. 21

Note: Either card I or card II can be installed the LC3 and LC4 position.



7 4. Single line telephone

Be sure the power switch is OFF, before installation.



1

Expansion card II (VA-20843)

① Insert the expansion card (VA-20843) into the LC3 and LC4 position.

- One card can connect two single line telephones.
- The LC3 and LC4 cards correspond to the extension Nos. as follows:
  LC3 → EXT No. 18 and EXT No. 19
  LC4 → EXT No. 20 and EXT No. 21

Note: Either card I or card II can be installed to LC3 and LC4 position.

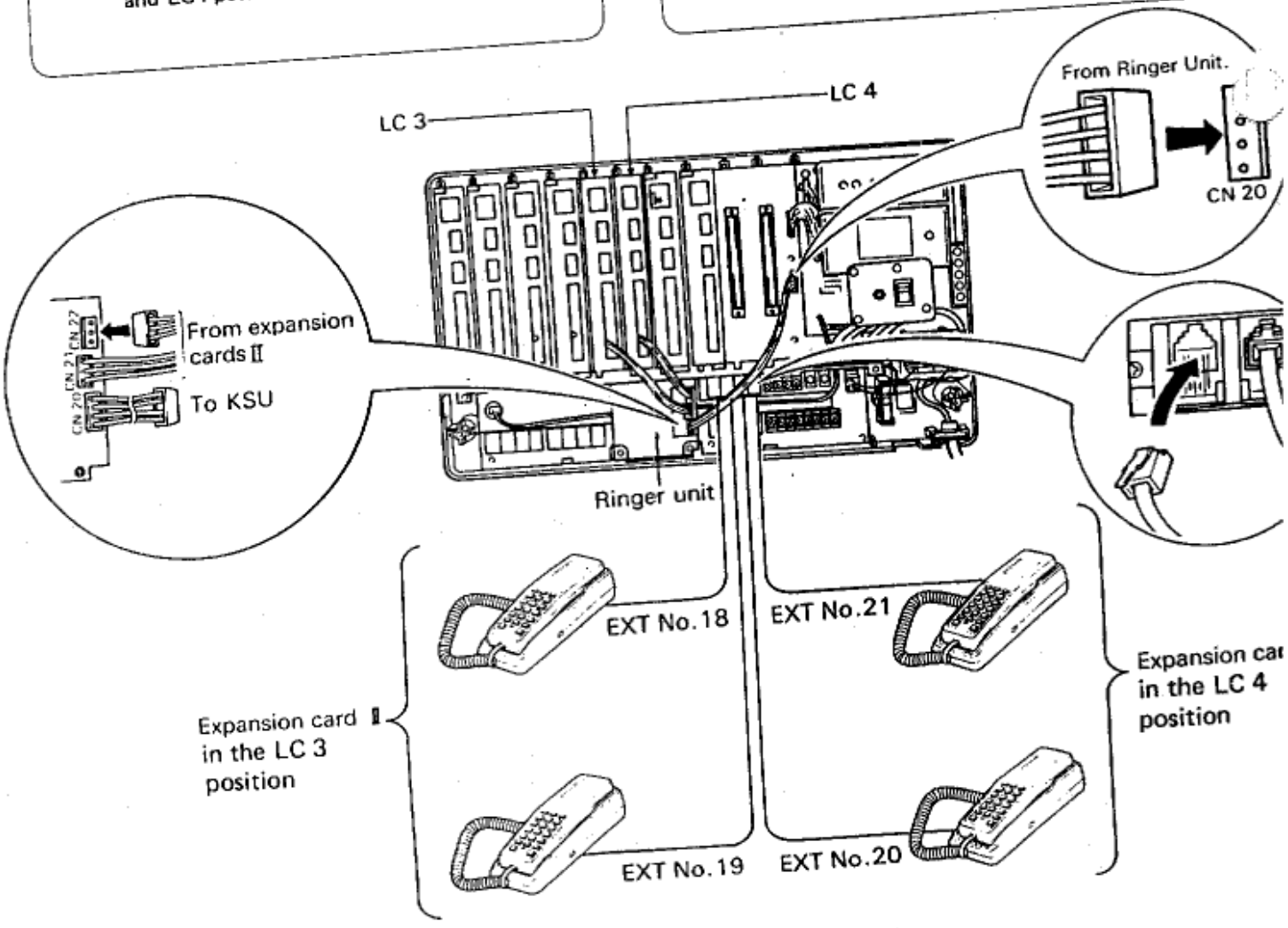
2

Ringer unit (VA-20843-1)

① Install the Ringer Unit to the key service unit using the two screws supplied.

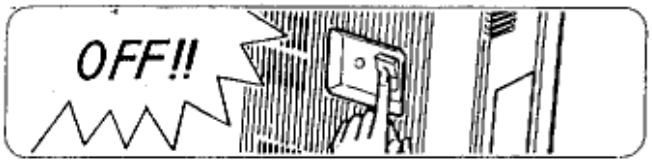
② Connect one of the connectors of expansion card (SLT) I to CN21 on the ringer unit.

③ Connect CN20 connector of the ringer unit with CN20 of the key service unit. (mother board)



7 5. Doorphone

Be sure the power switch is OFF, before installation.



1

Doorphone card (VA-20860A)

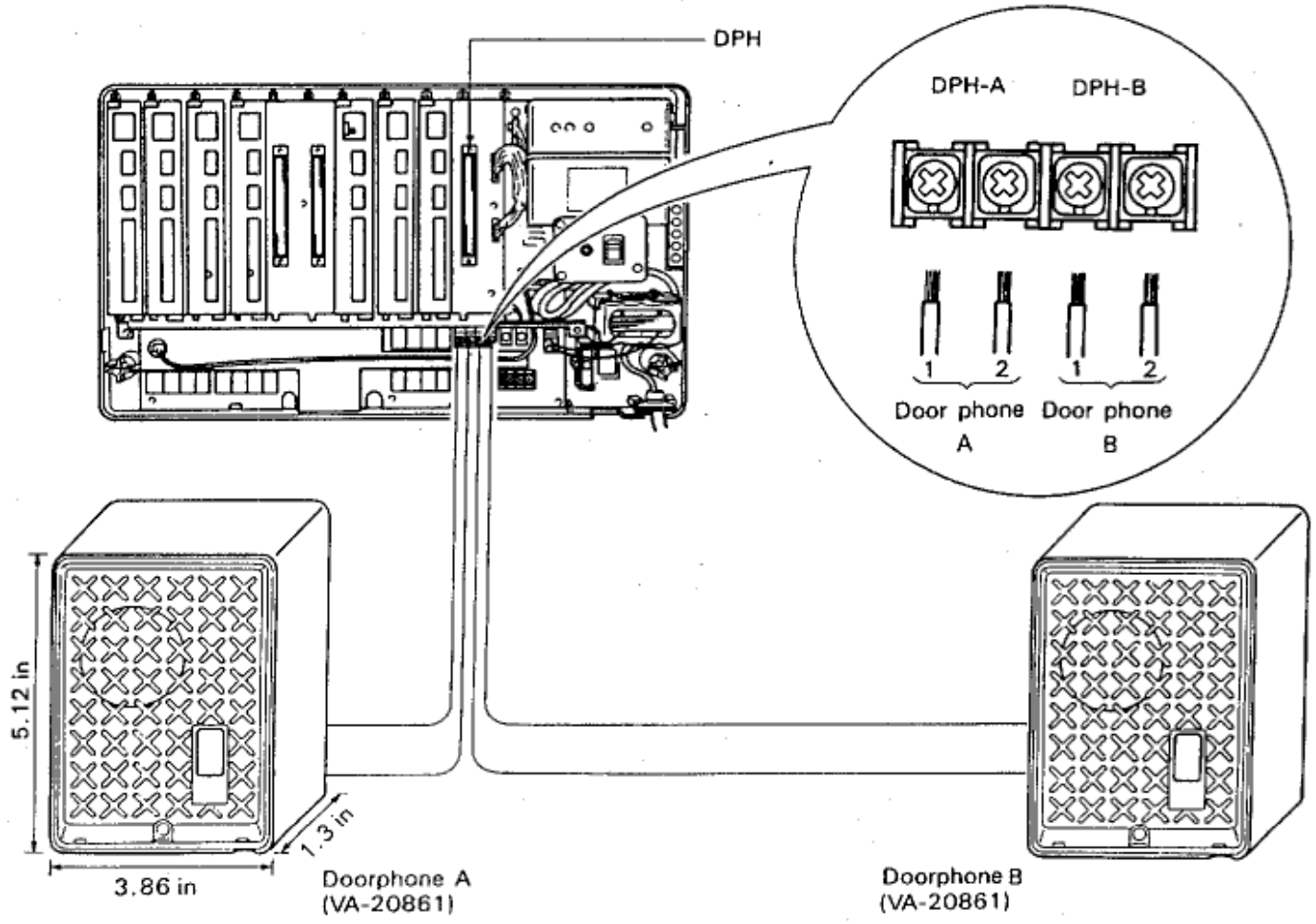
① Insert the doorphone card (VA-20860A) to the DPH position.

- The doorphone card can connect two doorphones.

2

Connection

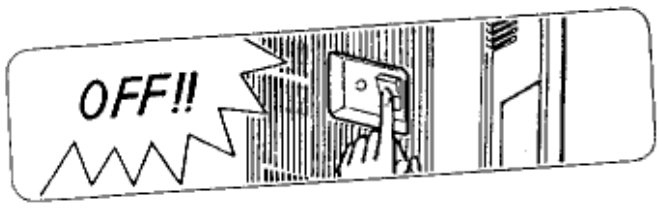
- Connect the doorphone (VA-20861) to DPH-A and/or the DPH-B terminals as shown below.
- Calling tones heard from the doorphones.
  Doorphone A → Electronic chime tone
  Doorphone B → Electronic tremoro tone



7 6. External music on hold source

Be sure the power switch is OFF, before installation.

An external music source can be connected for music on hold.

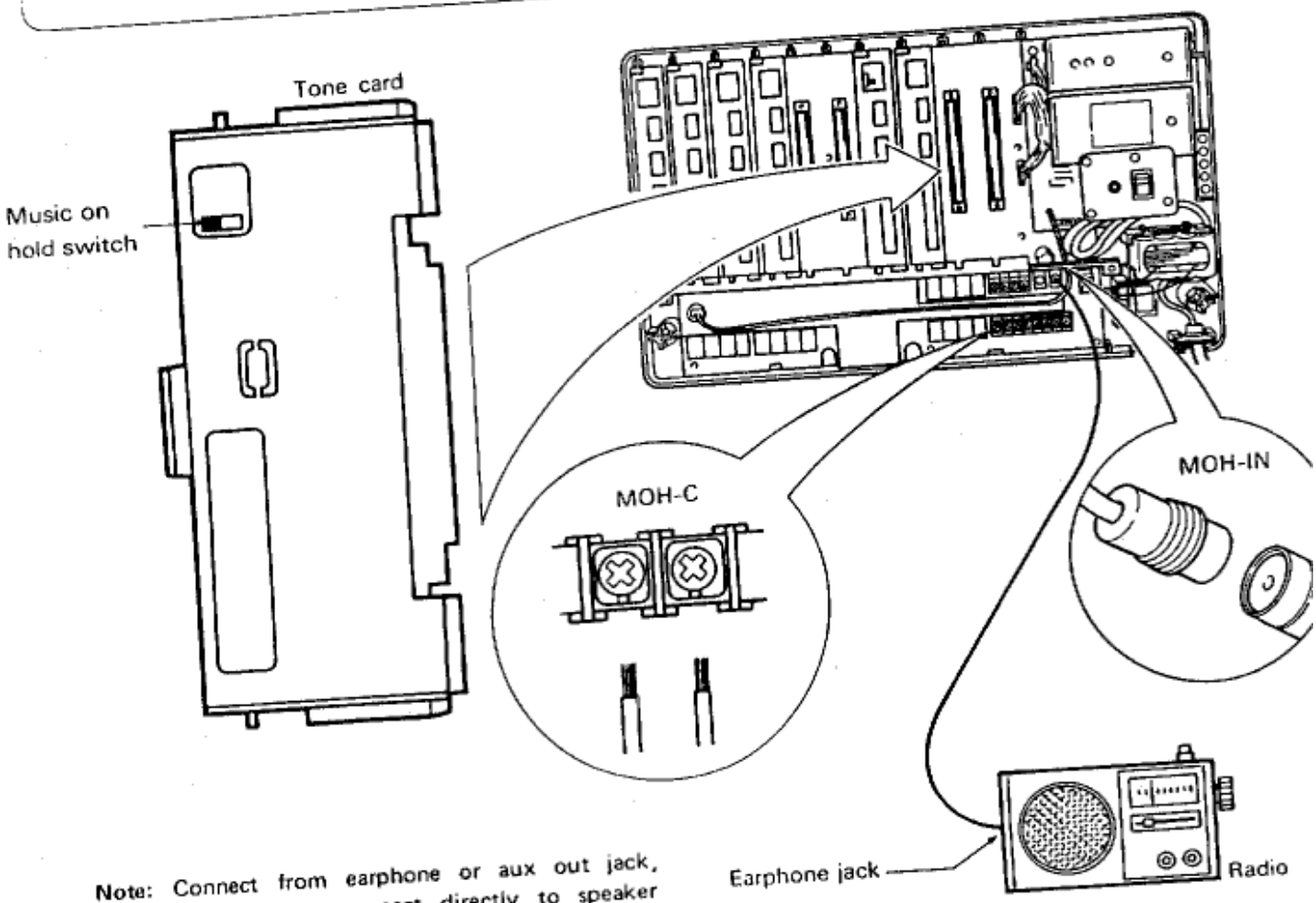


1 **Switch at TONE card**

① Turn the music on hold switch on the tone card to the EXT position.

2 **Connection**

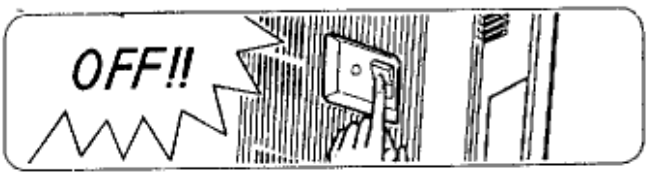
- Connect the music source to the MOH-IN terminals (RCA type terminals) and connect its control to the MOH-C terminals.



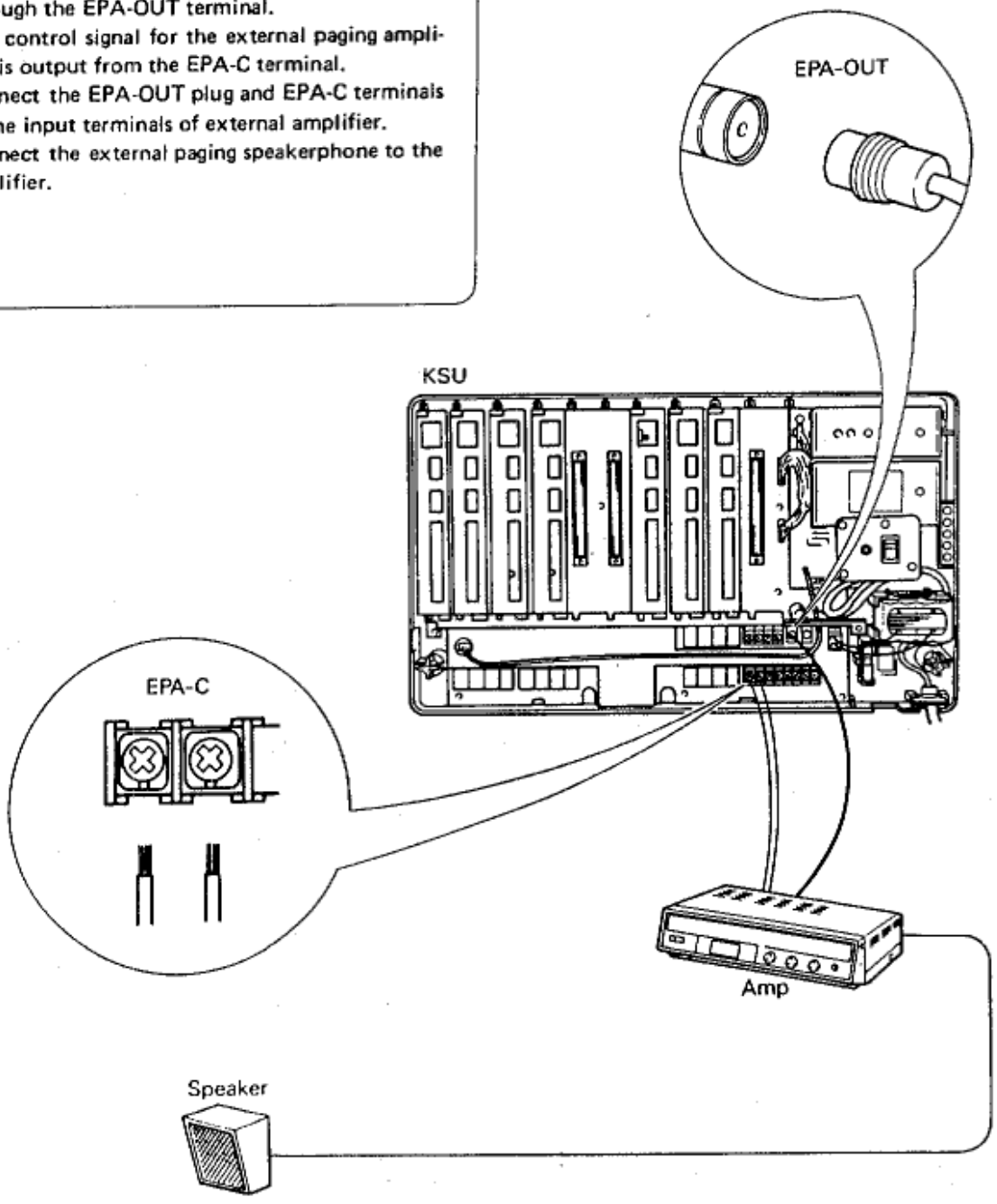
Note: Connect from earphone or aux out jack, only do not connect directly to speaker output jacks.

7 7. External paging system

Be sure the power switch is OFF, before installation.



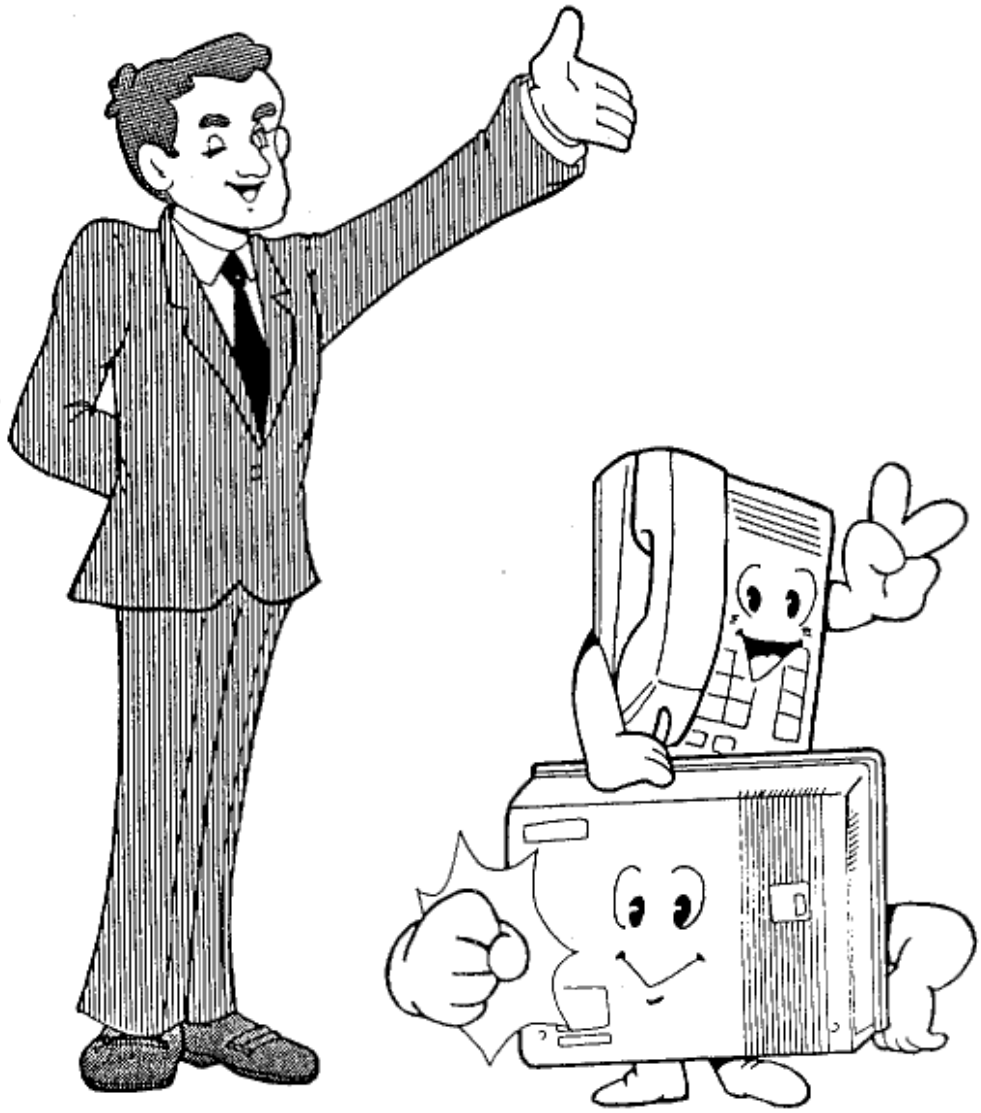
① The voice signal for the external paging is output through the EPA-OUT terminal.
The control signal for the external paging amplifier is output from the EPA-C terminal.
② Connect the EPA-OUT plug and EPA-C terminals to the input terminals of external amplifier.
③ Connect the external paging speakerphone to the amplifier.



PROGRAMMING

EXPLANATION ON PROGRAMMING

The Easa-Phone VA-412 is a small, sophisticated Key Telephone system. It offers many features which can be easily programmed to uniquely fit your communication needs.
The Easa-Phone utilizes Random Access Memory (RAM) for storage of the "User's" variable programs and features. Each telephone station can be assigned a set of features based on the individual "User's" requirements.
Note that a program has been pre-set into the Easa-Phone VA-412 system memory for general use which is called the Initial Set. Thus, no programming is necessary to immediately use your telephone system. However, to properly change the System Settings, COL Settings, Key Telephone Settings or from the Initial Set to any other option, the programming steps detailed under the Programming Settings for the desired feature must be followed.
A programming record chart is provided for ease of recording your program changes. A sample of this Programming Table indicating the Initial Set can be found in the back of this manual. Whenever programming charges are made, they should be immediately recorded on the Programming Table to provide a quick reference of the current programmed feature options.



PROGRAMMING CONTENTS

1 GENERAL OPERATION PROCEDURES 36
2 PROGRAMMING 40
2.1 System

Hold call reminder (Alarm tone sound time) 40
Long speech alarm (Alarm tone every 3 minutes) 41
Flash time (Line disconnect time) 42
PBX outward dialing digit (Outside No. setting) 43
Toll restriction (Long distance dialing type) 44
Toll restriction clear (Selected area codes allowed) 45

2.2 COL (Telephone line)

Trunk tone/pulse conversion (Tone/pulse dialing) 46
Direct line or PBX (Central office/PBX line) 47
Tone direction (80/160 m second signal) 48
Incoming call alarm (Alarm tone sound/no sound) 49

2.3 Key telephone

COL incoming ring (Select which central office line is to ring at each extension) 50
Flexible night service (No ring/ring) 51
Flexible night service setting (Set/not set) 52
COL auto answering (Done only by lifting the handset) 53
Privacy (Privacy/No privacy) 54
System speed dialing access (Restriction/No restriction) 55
Off-hook signaling (No ring/ring) 56
Single line telephone (Tone/Pulse) 57
Paging (No ring/ring) 58
Doorphone A (VA-20861) call 59
Doorphone B (VA-20861) call 60
Service class of toll restriction (Call restriction type) 61
Display time system setting (Time change) 63

APPENDIX ..... Programming table for initial set 64
Feature explanation 79

1 GENERAL OPERATIONAL PROCEDURES

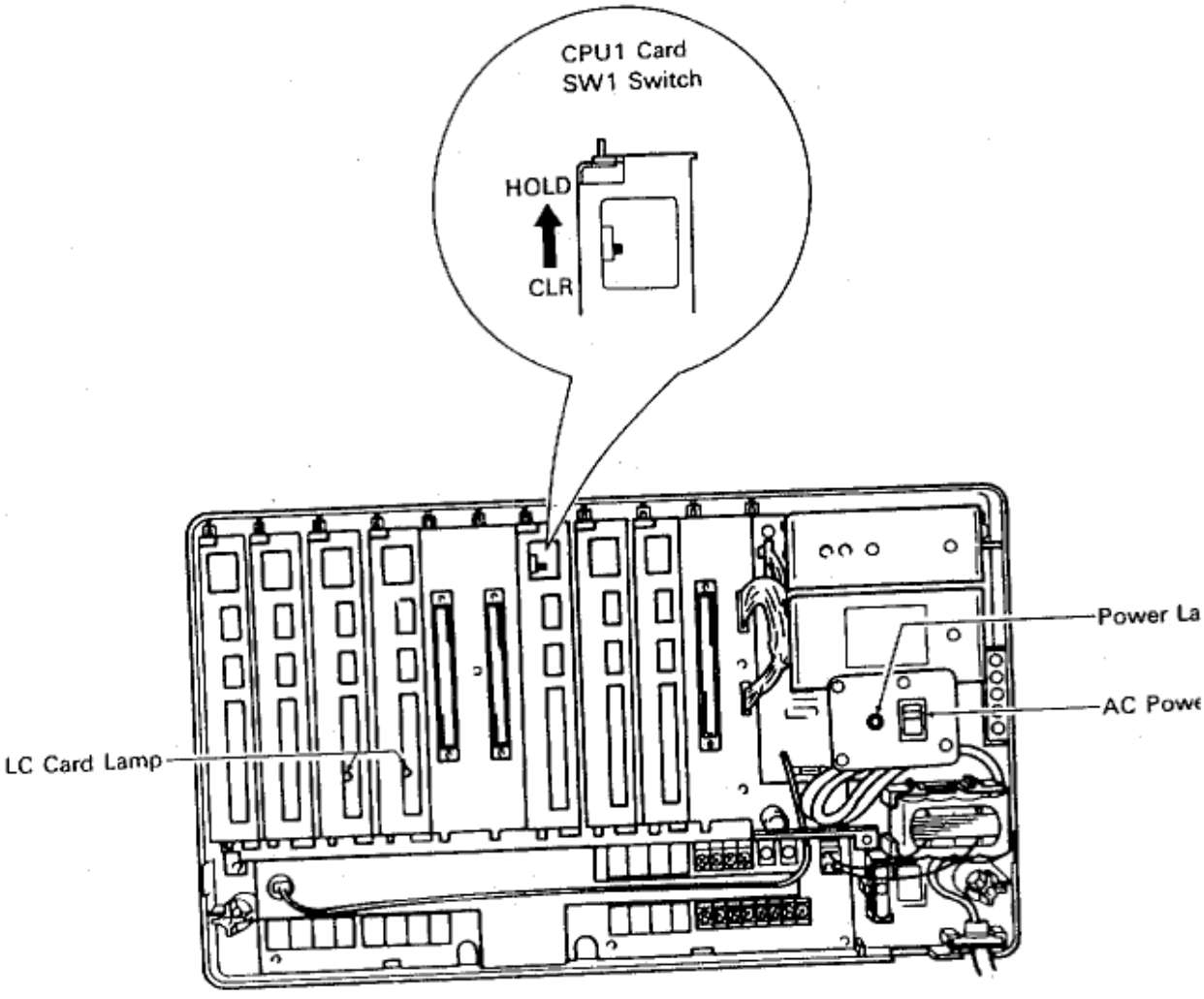
Read the following paragraphs before proceeding to the actual programming instructions and procedures. These note
procedures are intended to acclimate the programmer to the proper programming sequence required prior to the a
programming.

This system is programmed for average operational features. You can access the program and change it to su
application.

1 Turn on the initial program

① The SW1 switch of the CPU1 Card is initially in the "CLR" position.
② Turn the AC Power Switch to the "ON" position. (Green Power Lamp will light up).
③ After about 5 seconds, the LED lamp in the LC Card will flash red.
④ Turn the SW1 switch from the "CLR" to "HOLD" position.

Note: All programming changes are made at Extension No. 10 and must be done with a key telephone with a
(VA-41222).



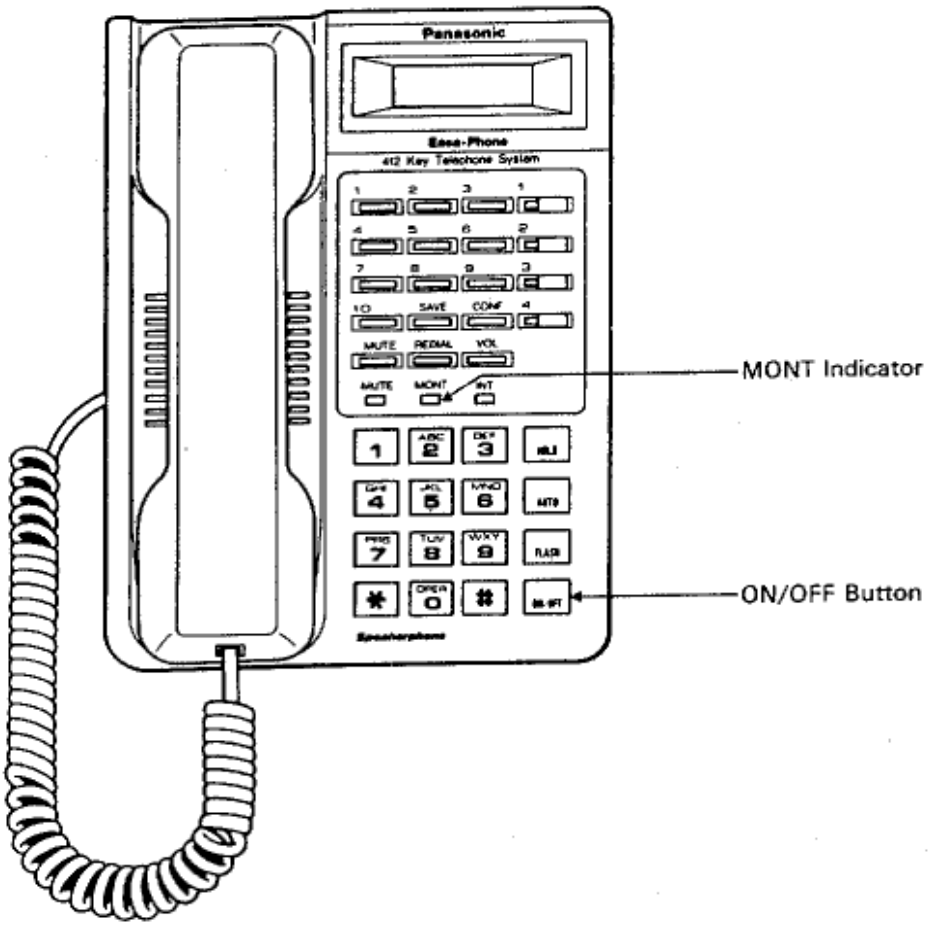
*The following operations should be done at EXT No. 10:

2 Press the ON/OFF button. The MONT and MUTE indicator light up and a continuous tone is emitted.

3 Press the dial keys [*] [0] [0] [0]. (The continuous tone will stop) and then press the dial keys [1] [#]

4 Press the program step numbers for the desired feature option. Refer to the PROGRAMMING TABLE for programmable feature option.

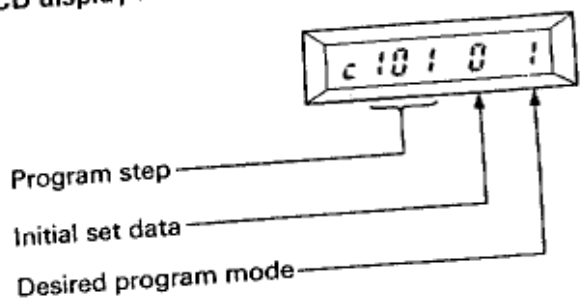
5 Press the [#] key and the next program step will appear on the LCD display.
Press the ON/OFF button to store the memory (MONT and MUTE indicator will go off).



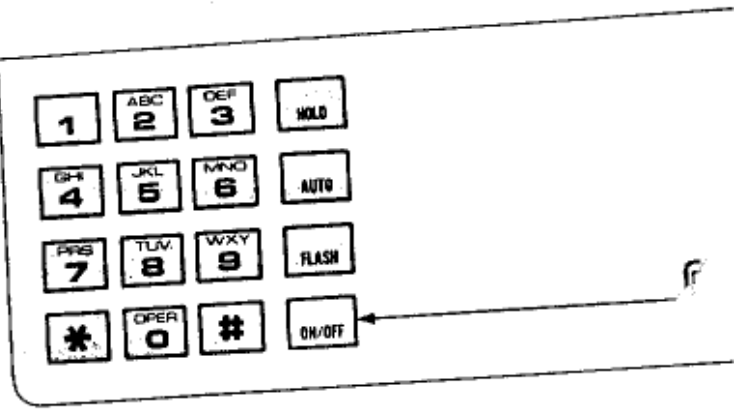
Programming Example of Hold call reminder

Program mode is displayed as per right diagram.

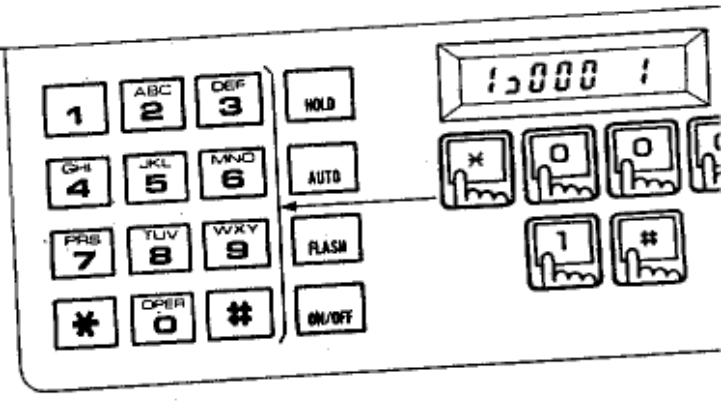
LCD display indication



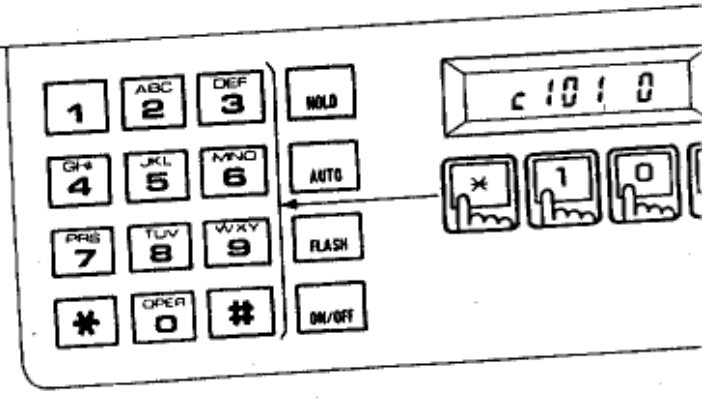
1 Programming is made at EXT No. 10. Press the ON/OFF button, and the continuous tone will begin to be heard.



2 Press the dial keys [*] [0] [0] [0], and the continuous tone will stop.
Press dial keys [1] [#] for programming mode at EXT No. 10.

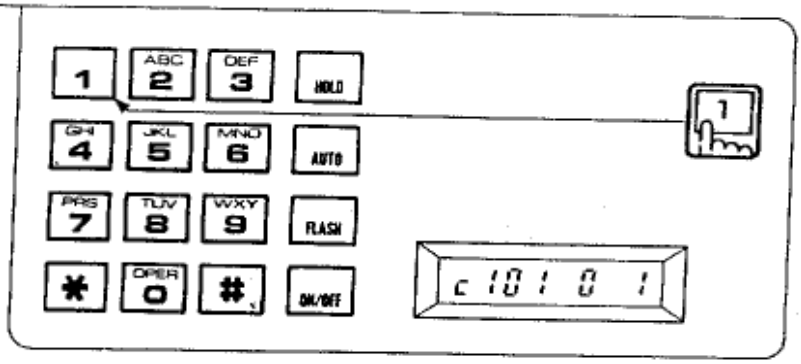


3 Press the dial keys [*] [1] [0] [1] to access step No. 101. Initial set data 0 will appear to show NO RECALL.



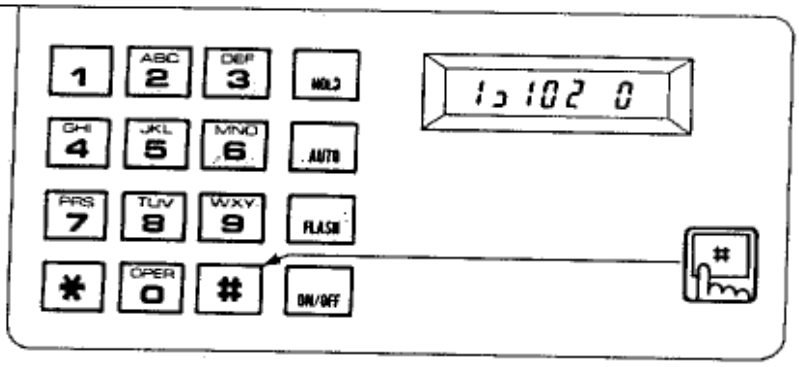
4

- Press dial key [1] to have the recall after 30 second.
- Press [2] for one minute, or [3] for two minutes.



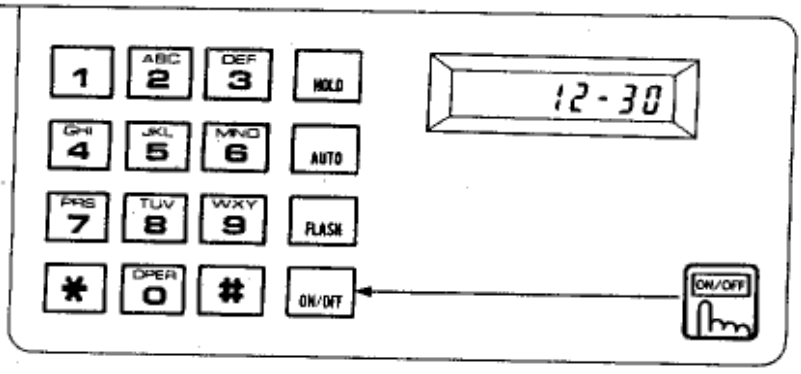
5

Press the dial key [#] and proceed to the next program step.
[1: 102 0] will appear on the LCD display.



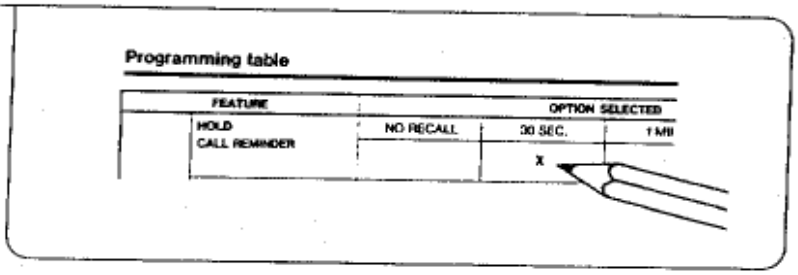
6

Press the ON/OFF button to set the program into memory. The display will return to the clock mode.



7

Record the program change on the Programming Table by placing an X in the respective column.

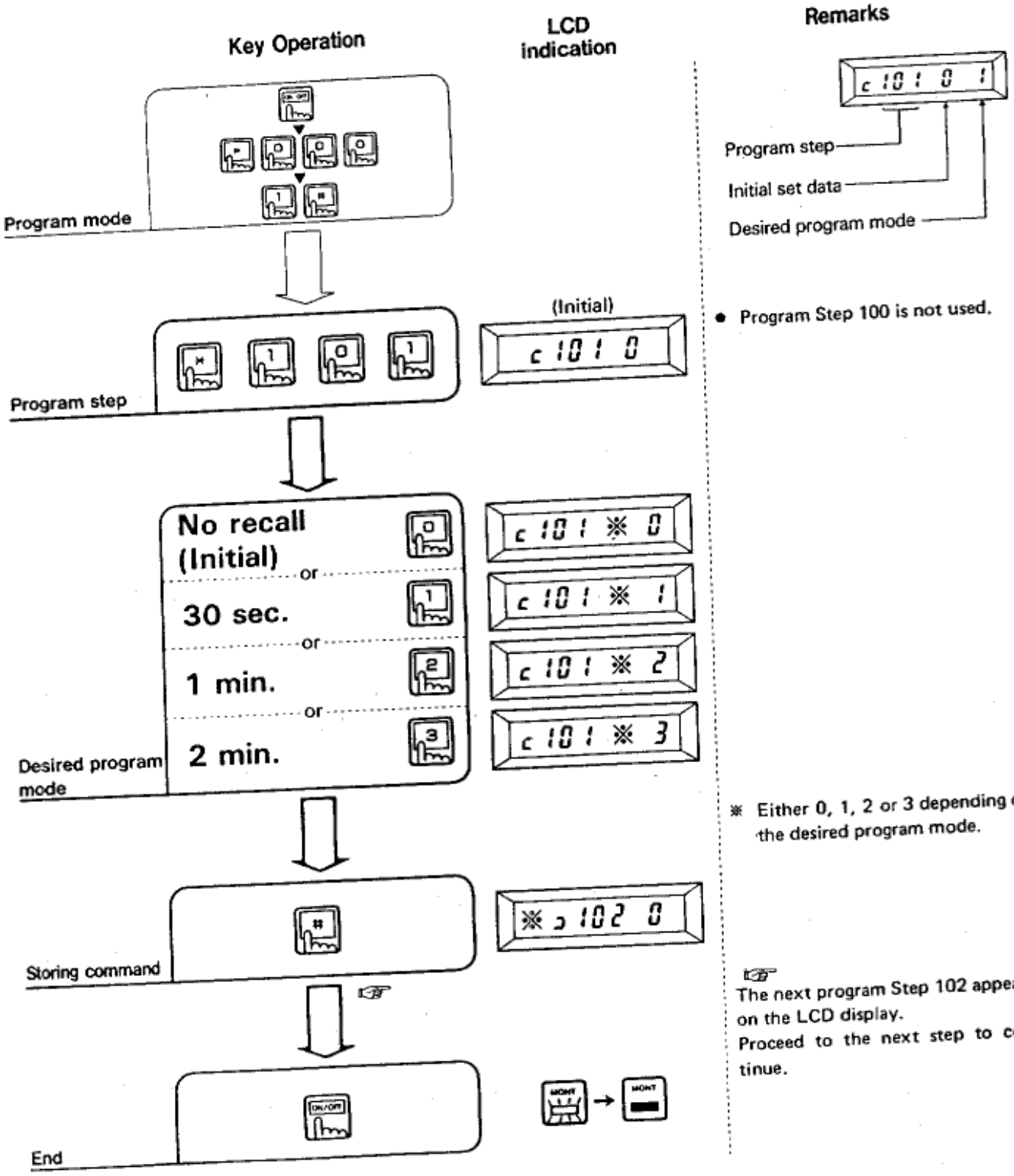


Note: If a wrong key is pressed at above Step 4, a continuous tone will be heard as an error indication. Press the ON/OFF button twice to reset it, and repeat the operation from the 2nd step.

2 1. System

Hold call reminder

If a call is kept on hold for longer than the pre-set time, a recall tone will sound to remind you that a call is still on hold.



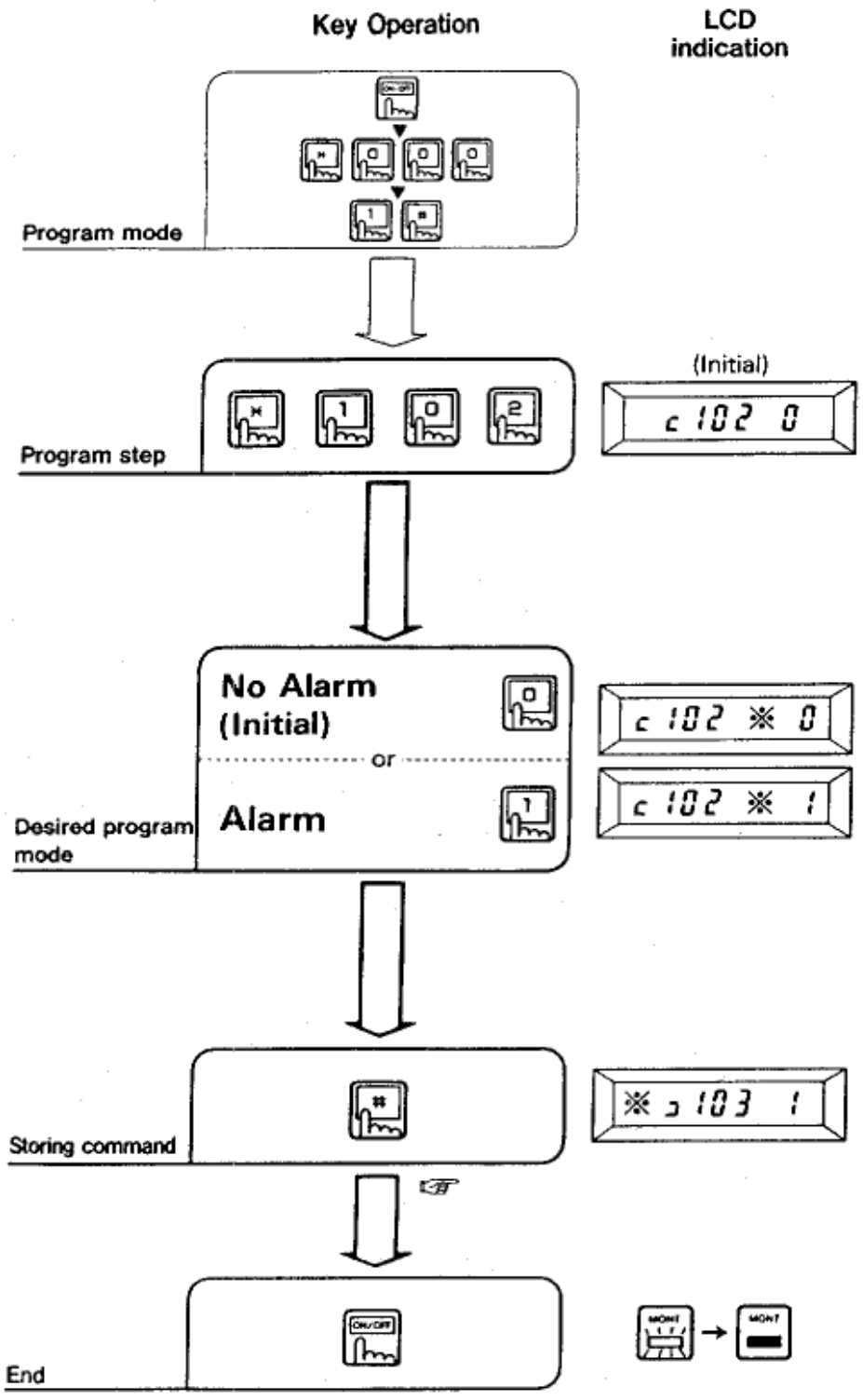
- Program Step 100 is not used.

※ Either 0, 1, 2 or 3 depending on the desired program mode.

☞ The next program Step 102 appears on the LCD display. Proceed to the next step to continue.

Long speech alarm

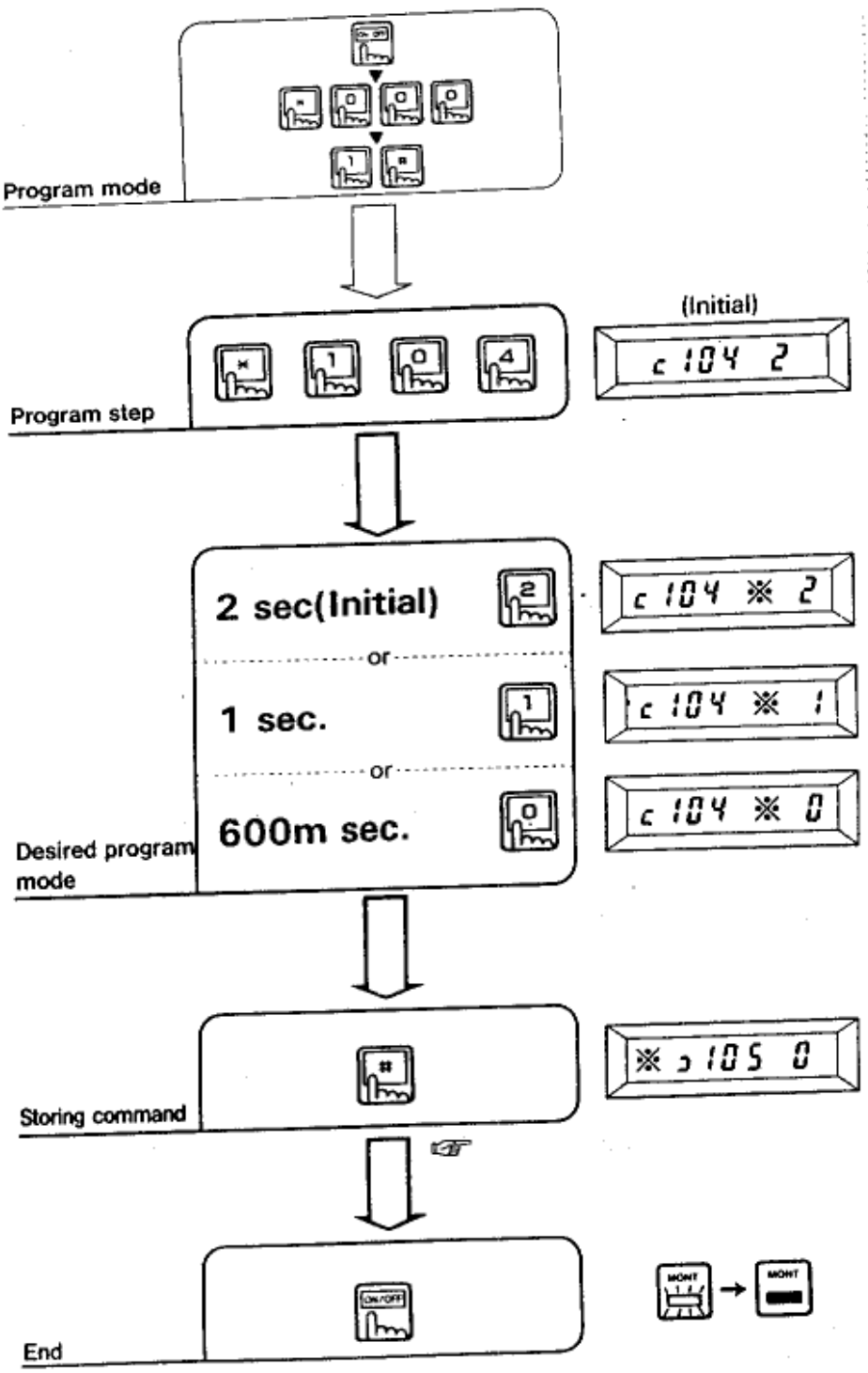
A soft tone will be heard from the monitor speaker every three minutes as time alarm.



Flash Time

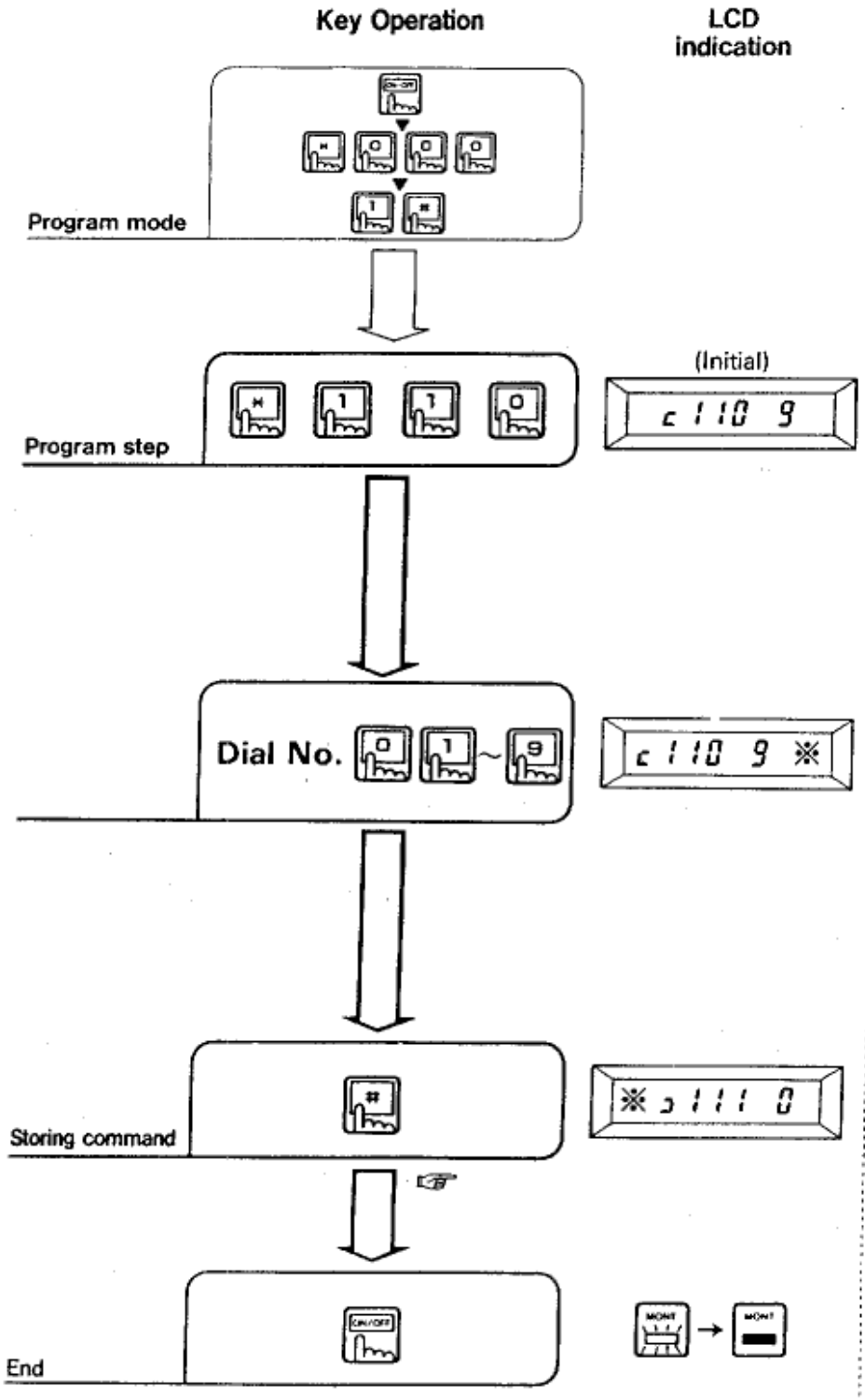
If the FLASH button is pressed, the line will be disconnected for the pre-programmed time. When conn
PBX the FLASH key is used for hooking, and 600 msec is advised.

Flash time



PBX Outward dialing digit

If the system is connected behind a PBX, the first digit dialed will have to access to an outside line if programmed.
Example: It is necessary to dial 9 first before dialing the desired telephone number.



※ 0 thru 9 can be programmed
Initial setting is 9.

☞
The next program Step 111 will appear on the LCD display.

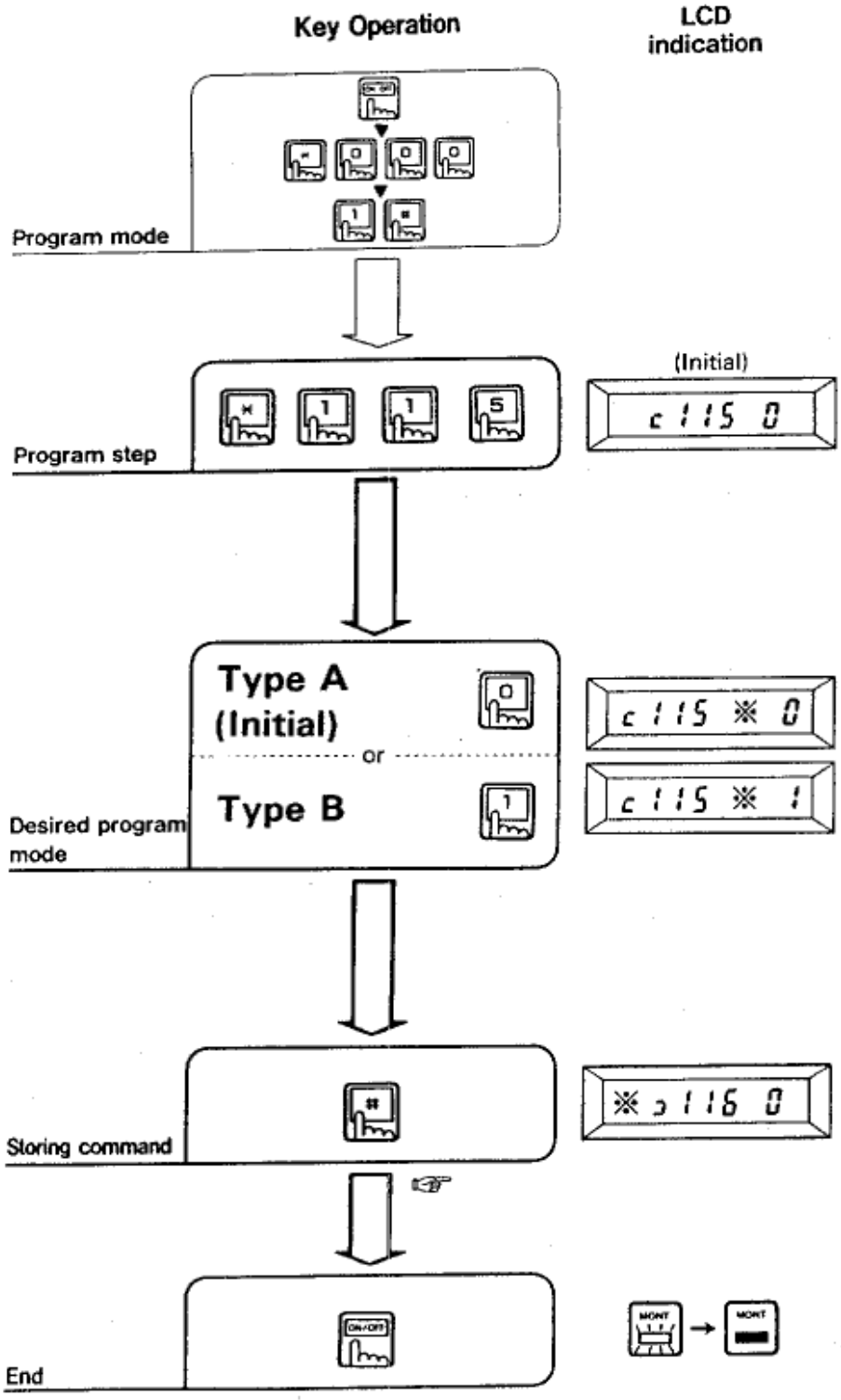
- Program Steps 111, 112, 113 and 114 are not used.

Toll restriction

The stations which are programmed for Service Class 1 or 2 must also be programmed for Ty. . A

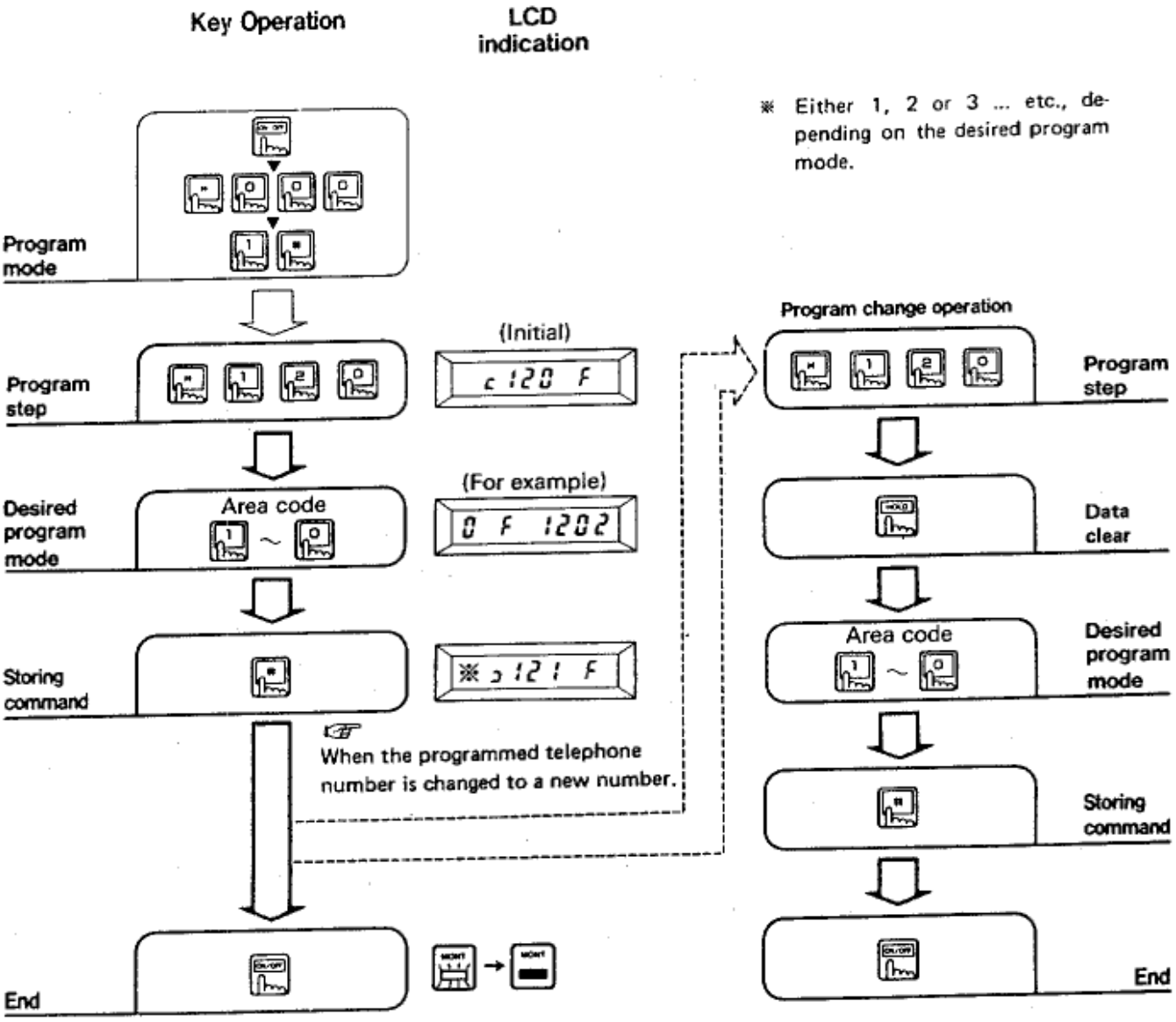
The type of service is dependent upon the long distance plan of your local area. Geographic areas wh code and number should be assigned the Type A service. Geographic areas where you must dial '1' bef code and number should be assigned the Type B service.

Type A: Only area code Type B: 1 + area code



Toll restriction clear (selected area codes allowed)

Extensions which have service class 1 or 2 restriction may dial some area codes (Max. 8) which can be allowed for long distance calls.
Example: Programmed [1][2][0][1] to allow area code 201.



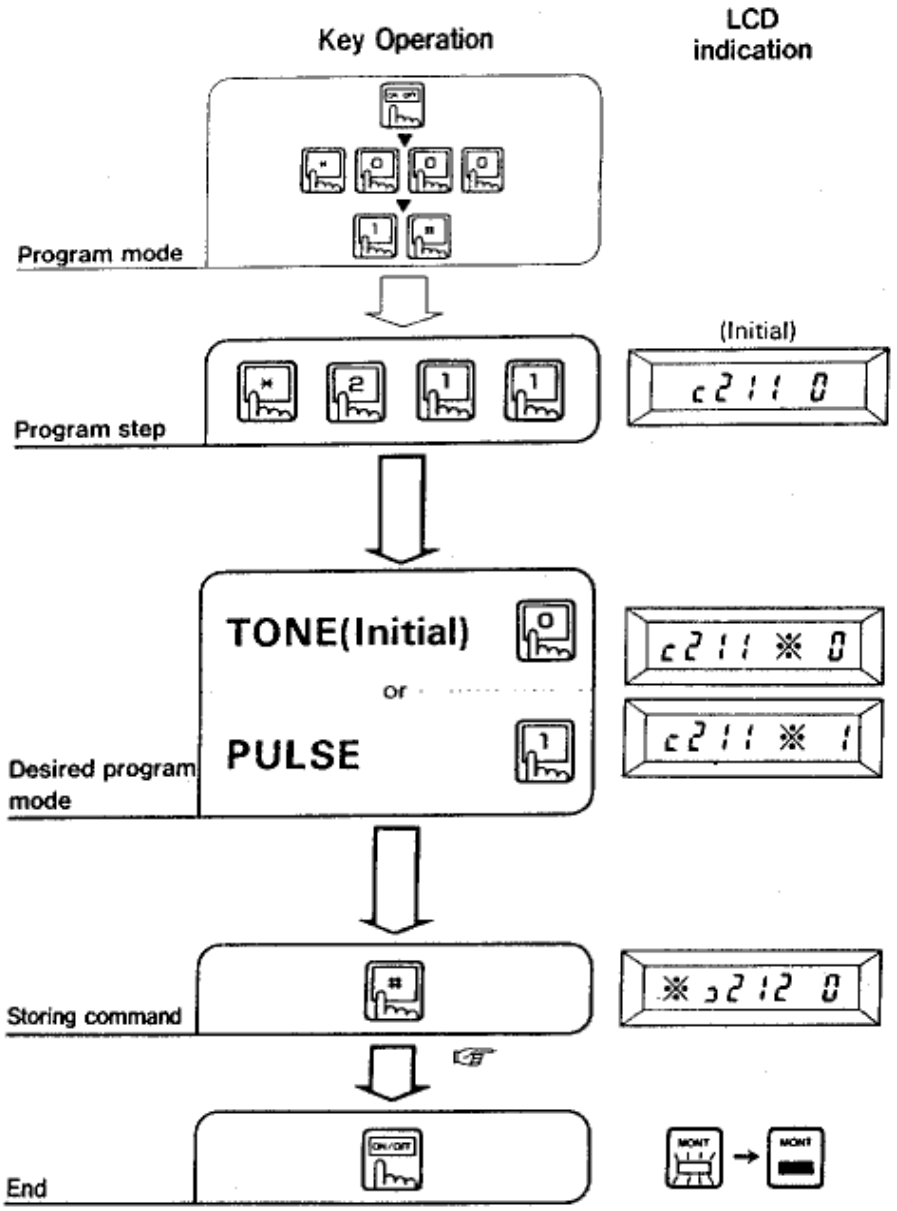
Allowed No.	Program step	LCD Indication
1	[✱][1][2][0]	c 120 F
2	[✱][1][2][1]	c 121 F
3	[✱][1][2][2]	c 122 F
4	[✱][1][2][3]	c 123 F

Allowed No.	Program step	LCD Indication
5	[✱][1][2][4]	c 124 F
6	[✱][1][2][5]	c 125 F
7	[✱][1][2][6]	c 126 F
8	[✱][1][2][7]	c 127 F

[2] 2. COL (Telephone line)

Trunk tone/pulse conversion

Dialing mode of tone or pulse can be programmed to meet the central office requirements.



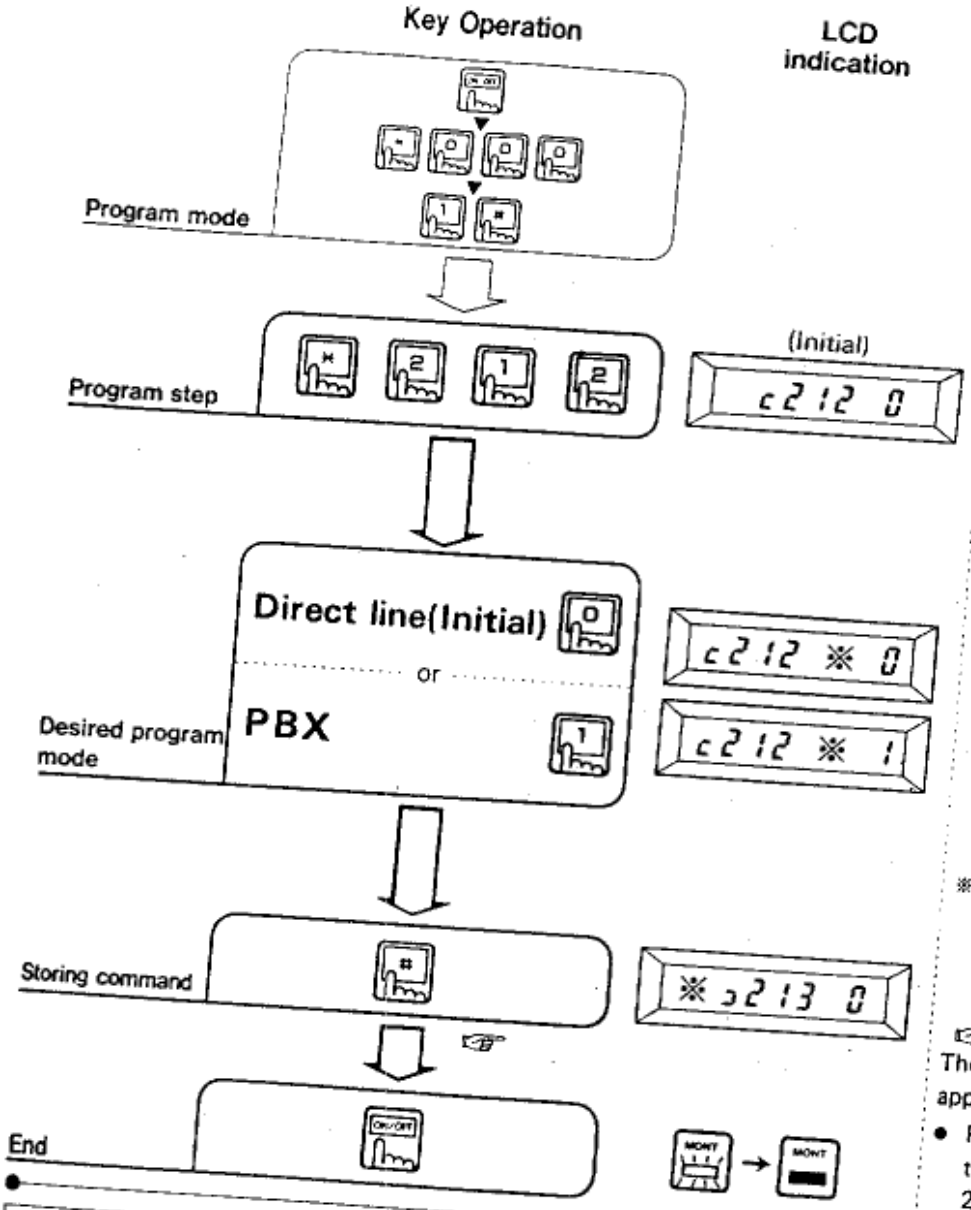
COL	Program step	LCD indication
1	✱ 2 1 1	c211 0
2	✱ 2 2 1	c221 0
3	✱ 2 3 1	c231 0
4	✱ 2 4 1	c241 0

These program steps are made for each telephone line (COL).

Direct line or PBX

If the system is connected behind a PBX (Private Branch Exchange), a pause is needed between the first and second digits to access the host PBX.

In case the following program is not made, their will not be the toll restriction.

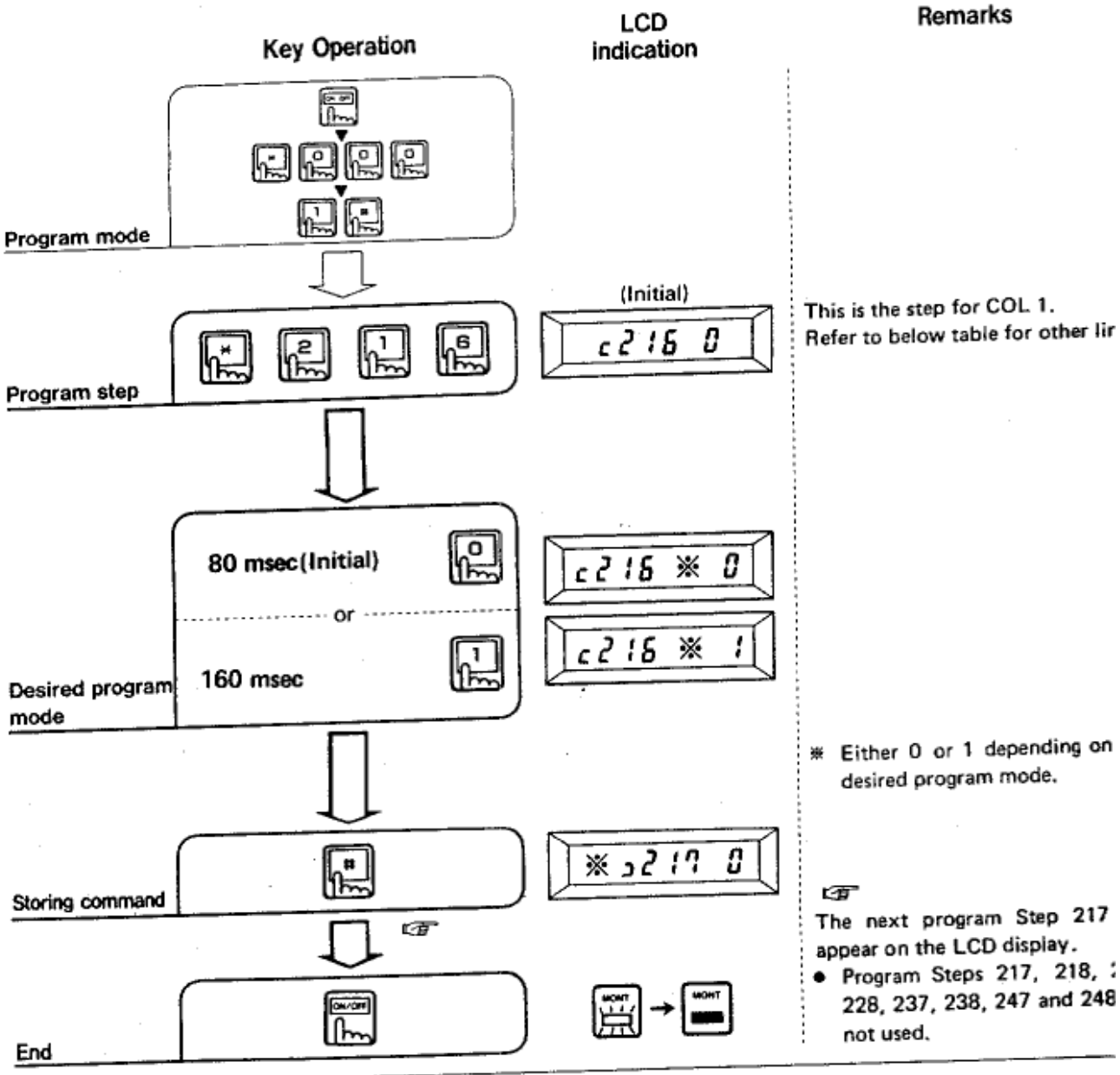

Key Operation
LCD indication
Remarks
Program mode
Program step
(Initial)
c212 0
This is the step for COL 1.
Refer to below table for other lines.
Direct line(Initial)
or
PBX
Desired program mode
c212 ※ 0
c212 ※ 1
※ Either 0 or 1 depending on the desired program mode.
Storing command
※c213 0
The next program Step 213 will appear on the LCD display.
End
• Program Steps 213 to 215, 223 to 225, 233 to 235 and 243 to 245 are not used.

COL	Program step	LCD Indication
1	✳ 2 1 2	c212 0
2	✳ 2 2 2	c222 0
3	✳ 2 3 2	c232 0
4	✳ 2 4 2	c242 0

These program steps are made for each telephone line (COL).

Tone duration

If mis-dialing is sometimes made while tone dialing, change the tone duration time to 160 msec.

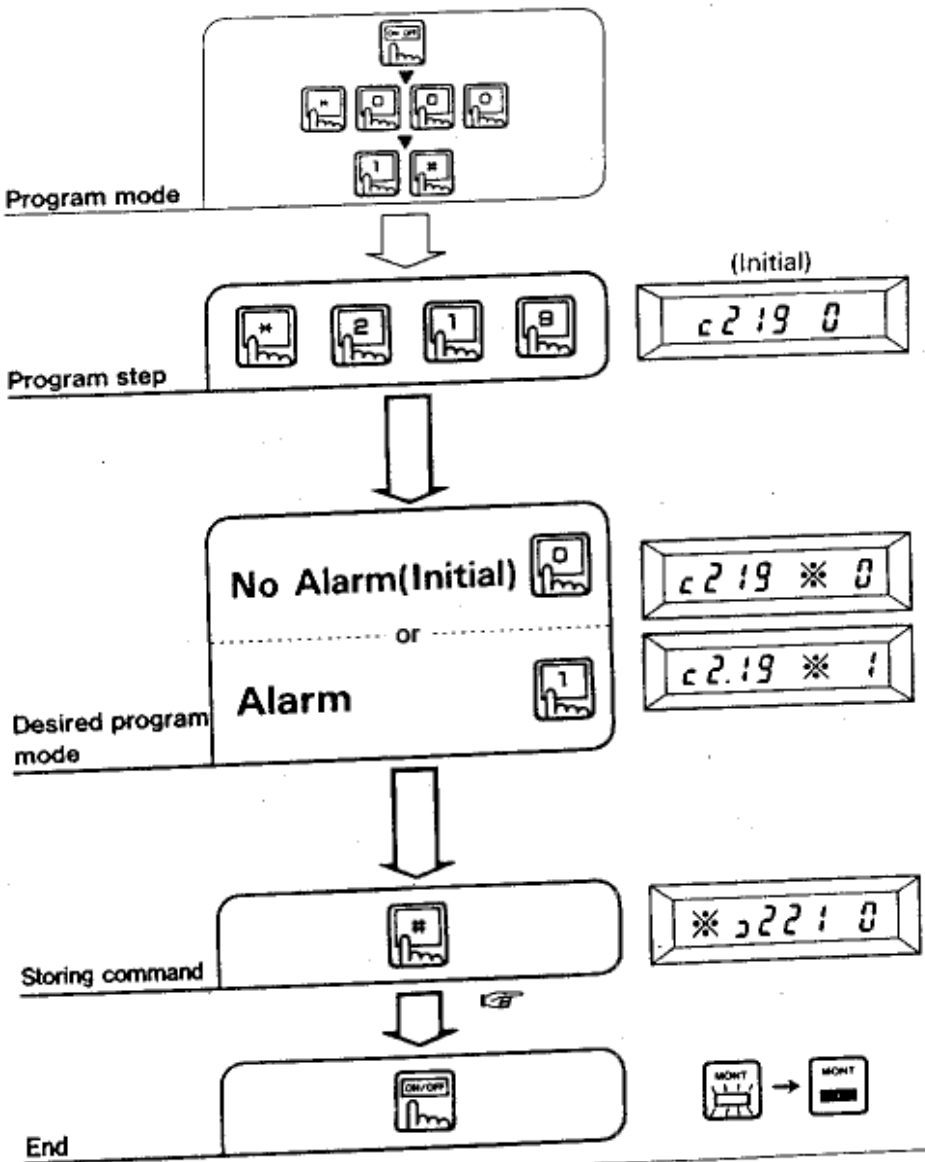


COL	Program step	LCD Indication
1	✱ 2 1 6	c216 0
2	✱ 2 2 6	c226 0
3	✱ 2 3 6	c236 0
4	✱ 2 4 6	c246 0

These program steps are made for each telephone (COL).

Incoming call alarm

If an incoming central office call is not answered within 20 sec at an extension(s), an alarm tone will be heard from wit
COL incoming ring program.



COL	Program step	LCD Indication
1	✳ 2 1 9	c219 0
2	✳ 2 2 9	c229 0
3	✳ 2 3 9	c239 0
4	✳ 2 4 9	c249 0

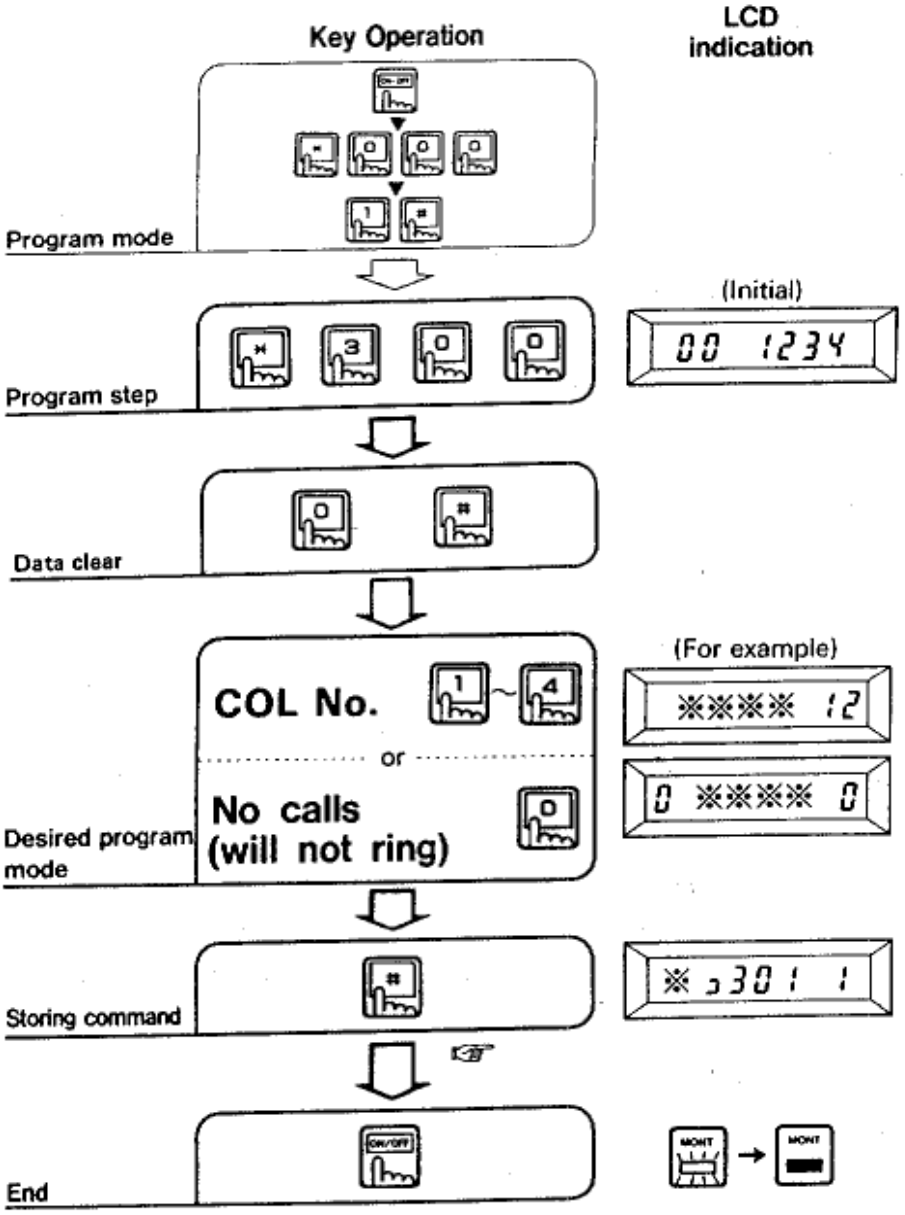
These program steps are made for each telephone li
(COL).

2 3. Key telephone

COL Incoming ring

Each trunk (COL) and extension can be programmed whether or not to receive incoming calls.
It is programmed for each extension and each trunk (COL).

In case the following program needs to be altered, clear the program by pressing the 0 and # buttons, Subsequentl make a new program.



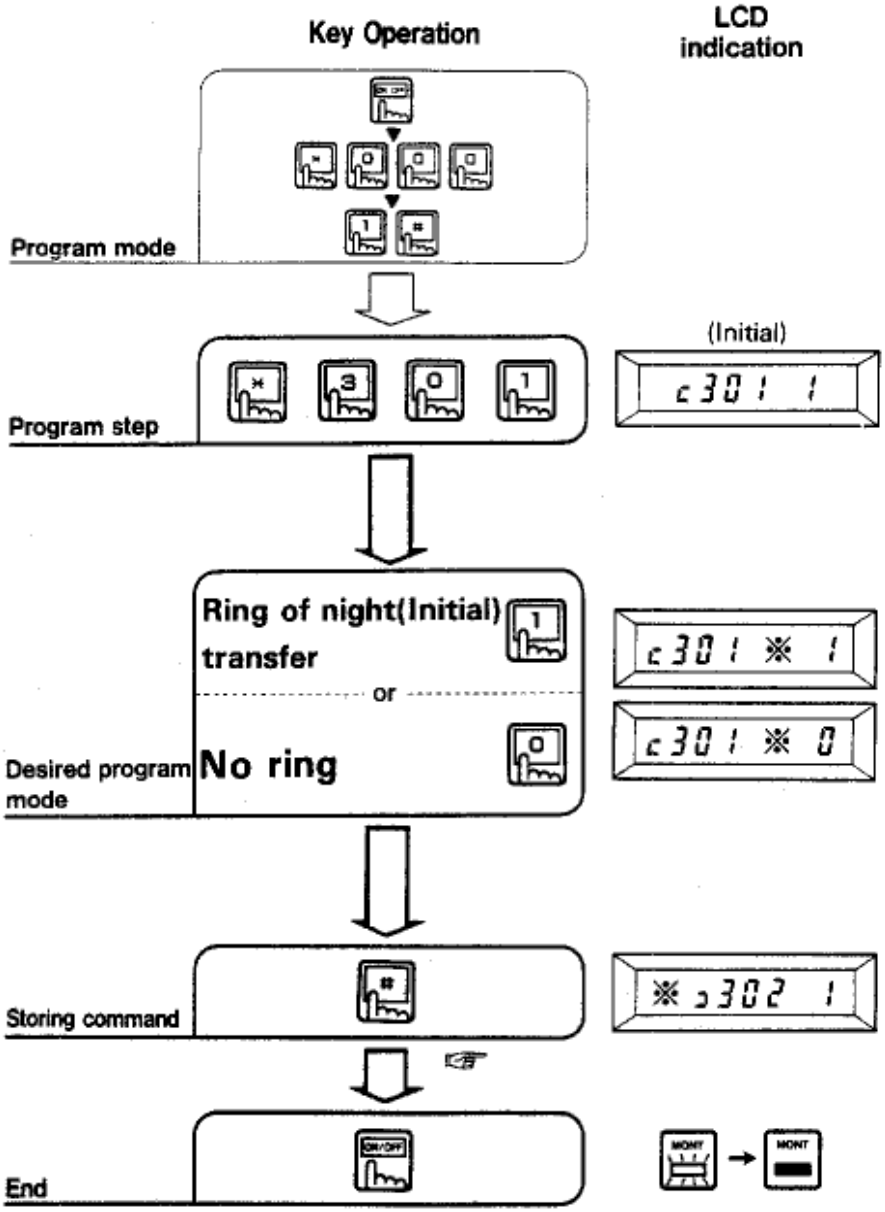
These program steps are made for each extension and each telephone line (COL).

EXT No.	Program step	LCD Indication
10	✱ 3 0 0	00 1234
11	✱ 3 1 0	10 1234
12	✱ 3 2 0	20 1234
13	✱ 3 3 0	30 1234
14	✱ 3 4 0	40 1234
15	✱ 3 5 0	50 1234

EXT No.	Program step	LCD Indicatic
16	✱ 3 6 0	60 1234
17	✱ 3 7 0	70 1234
18	✱ 3 8 0	80 12
19	✱ 3 9 0	90 1
20	✱ 4 0 0	00 123
21	✱ 4 1 0	10 1234

Flexible night service

To program the (designate) extensions which will receive night incoming calls by the flexible night [illegible]


Key Operation
LCD indication
Remarks
Program mode
Program step
(Initial)
c301 1
This is the step for EXT No. 10. Refer to below table for other extensions.
Ring of night(Initial) transfer
or
No ring
Desired program mode
c301 ※ 1
c301 ※ 0
※ Either 0 or 1 depending on the desired program mode
Storing command
※ c302 1
The next program Step 302 will appear on the LCD display. Proceed to the next step to continue.
End

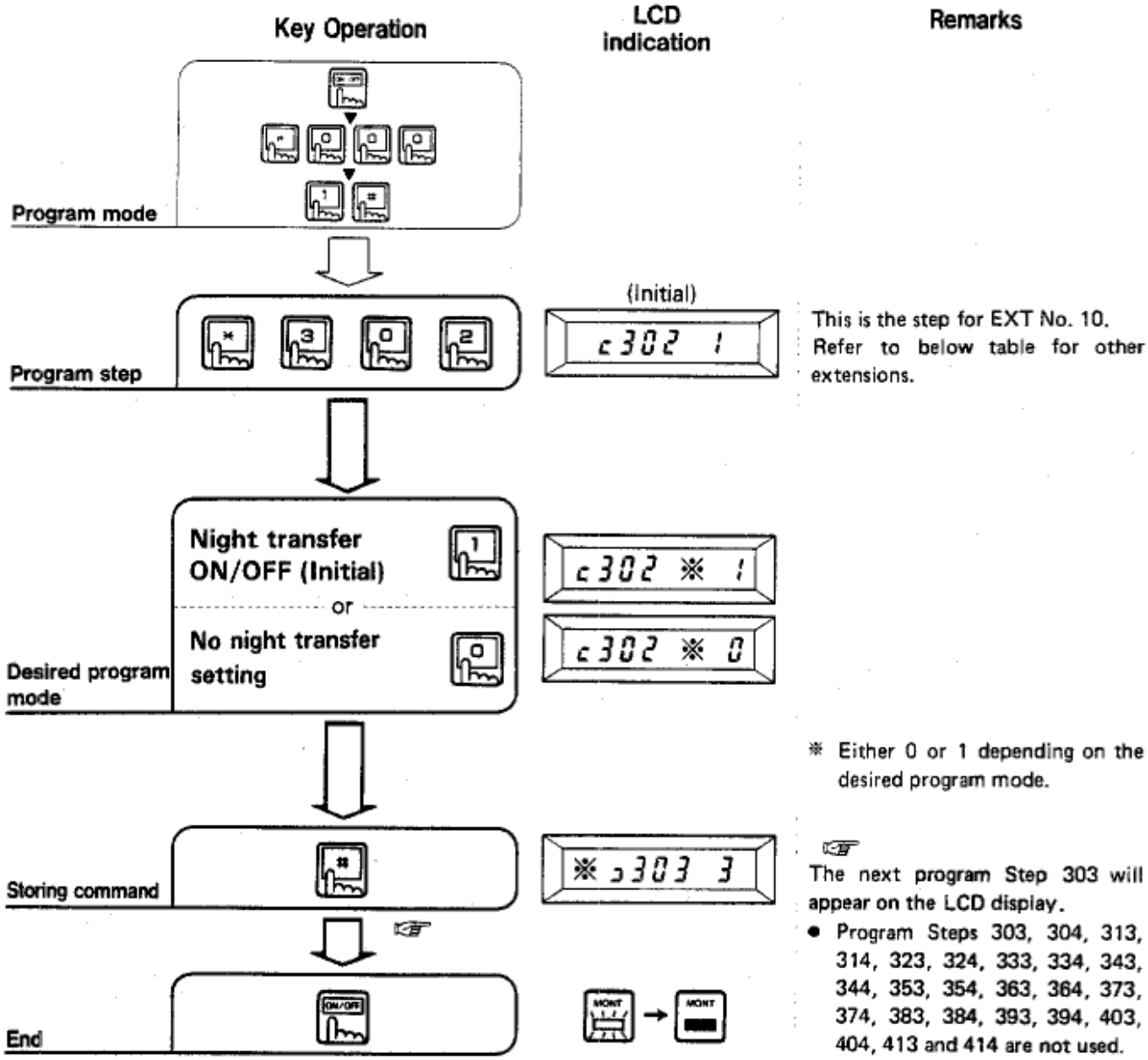
These program steps are made for each extension.

EXT No.	Program step	LCD Indication
10	✱ 3 0 1	c301 1
11	✱ 3 1 1	c311 1
12	✱ 3 2 1	c321 1
13	✱ 3 3 1	c331 1
14	✱ 3 4 1	c341 1
15	✱ 3 5 1	c351 1

EXT No.	Program step	LCD Indication
16	✱ 3 6 1	c361 1
17	✱ 3 7 1	c371 1
18	✱ 3 8 1	c381 1
19	✱ 3 9 1	c391 1
20	✱ 4 0 1	c401 1
21	✱ 4 1 1	c411 1

Flexible night service setting

To set are single extention to respond to every incoming call.


Key Operation
LCD indication
Remarks
Program mode
Program step
(Initial)
c302 1
This is the step for EXT No. 10. Refer to below table for other extensions.
Night transfer ON/OFF (Initial)
or
No night transfer setting
Desired program mode
c302 ※ 1
c302 ※ 0
※ Either 0 or 1 depending on the desired program mode.
Storing command
※ c303 3
The next program Step 303 will appear on the LCD display.
• Program Steps 303, 304, 313, 314, 323, 324, 333, 334, 343, 344, 353, 354, 363, 364, 373, 374, 383, 384, 393, 394, 403, 404, 413 and 414 are not used.
End
MONI
MONI

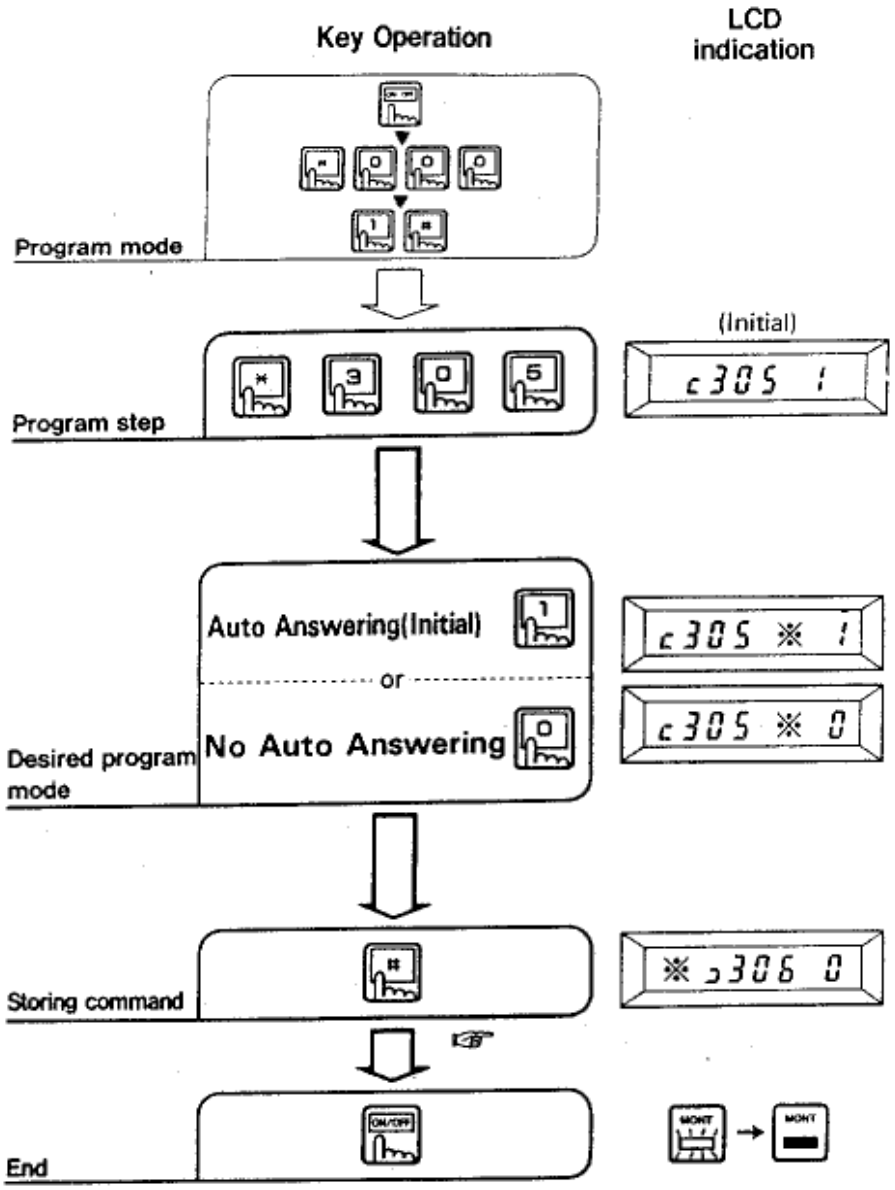
These program steps are made for each extension.

EXT No.	Program step	LCD Indication
10	✱ 3 0 2	c302 1
11	✱ 3 1 2	c312 1
12	✱ 3 2 2	c322 1
13	✱ 3 3 2	c332 1
14	✱ 3 4 2	c342 1
15	✱ 3 5 2	c352 1

EXT No.	Program step	LCD Indication
16	✱ 3 6 2	c362 1
17	✱ 3 7 2	c372 1
18	✱ 3 8 2	c382 1
19	✱ 3 9 2	c392 1
20	✱ 4 0 2	c402 1
21	✱ 4 1 2	c412 1

COL Auto answering

By programming this feature, it is not necessary to depress the COL buttons to retrieve the incoming call, simply lift the handset and start speaking.


Key Operation
LCD indication
Remarks
Program mode
Program step
(Initial)
c305 1
This is the step for EXT No. 10. Refer to below table for other extensions.
Auto Answering(Initial)
or
No Auto Answering
Desired program mode
c305 ※ 1
c305 ※ 0
※ Either 0 or 1 depending on the desired program mode.
Storing command
※ c306 0
The next program Step 306 will appear on the LCD display. Proceed to the next step to continue.
End

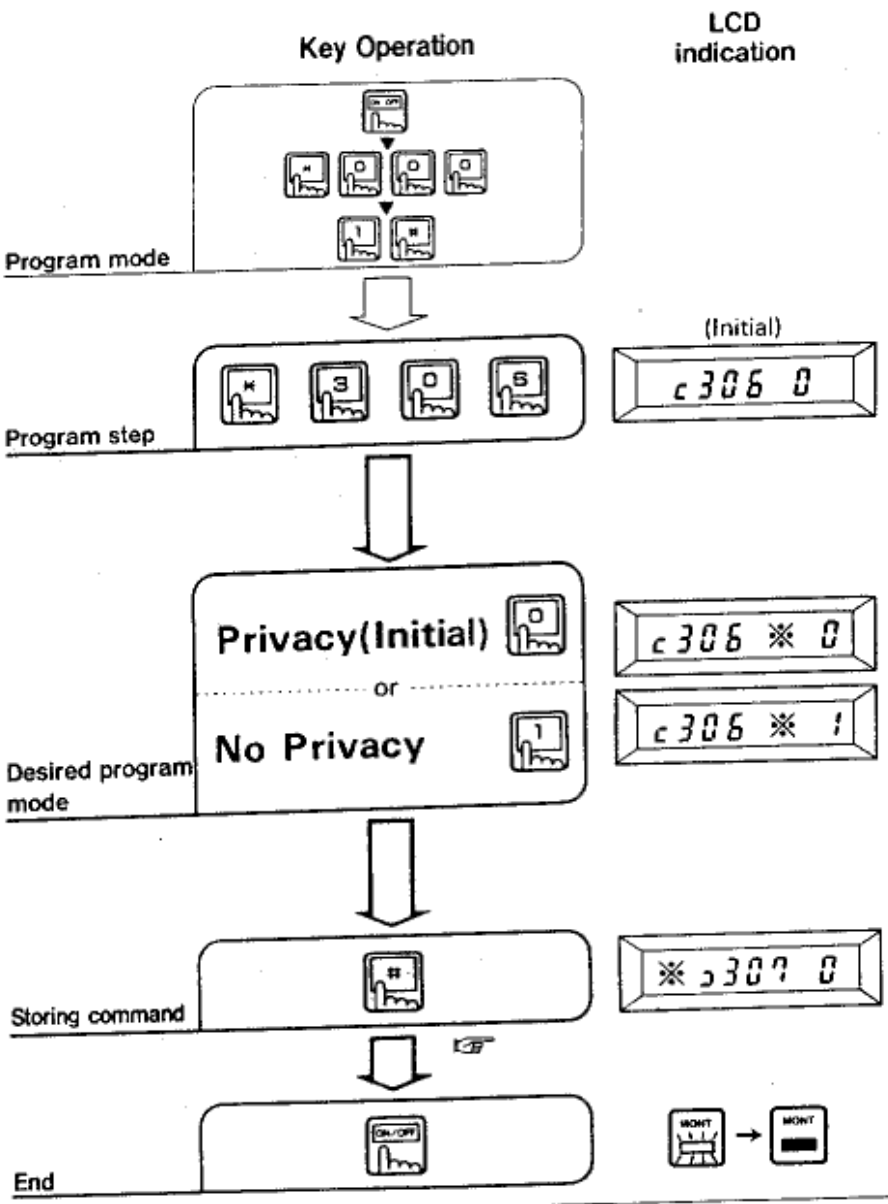
These program steps are made for each extension.

EXT No.	Program step	LCD Indication
10	✳ 3 0 5	c305 1
11	✳ 3 1 5	c315 1
12	✳ 3 2 5	c325 1
13	✳ 3 3 5	c335 1
14	✳ 3 4 5	c345 1
15	✳ 3 5 5	c355 1

EXT No.	Program step	LCD Indication
16	✳ 3 6 5	c365 1
17	✳ 3 7 5	c375 1
18	✳ 3 8 5	c385 1
19	✳ 3 9 5	c395 1
20	✳ 4 0 5	c405 1
21	✳ 4 1 5	c415 1

Privacy (COL override)

The initial setting is for privacy on all extensions but the privacy of an extension can be released so that other extensi can monitor it.



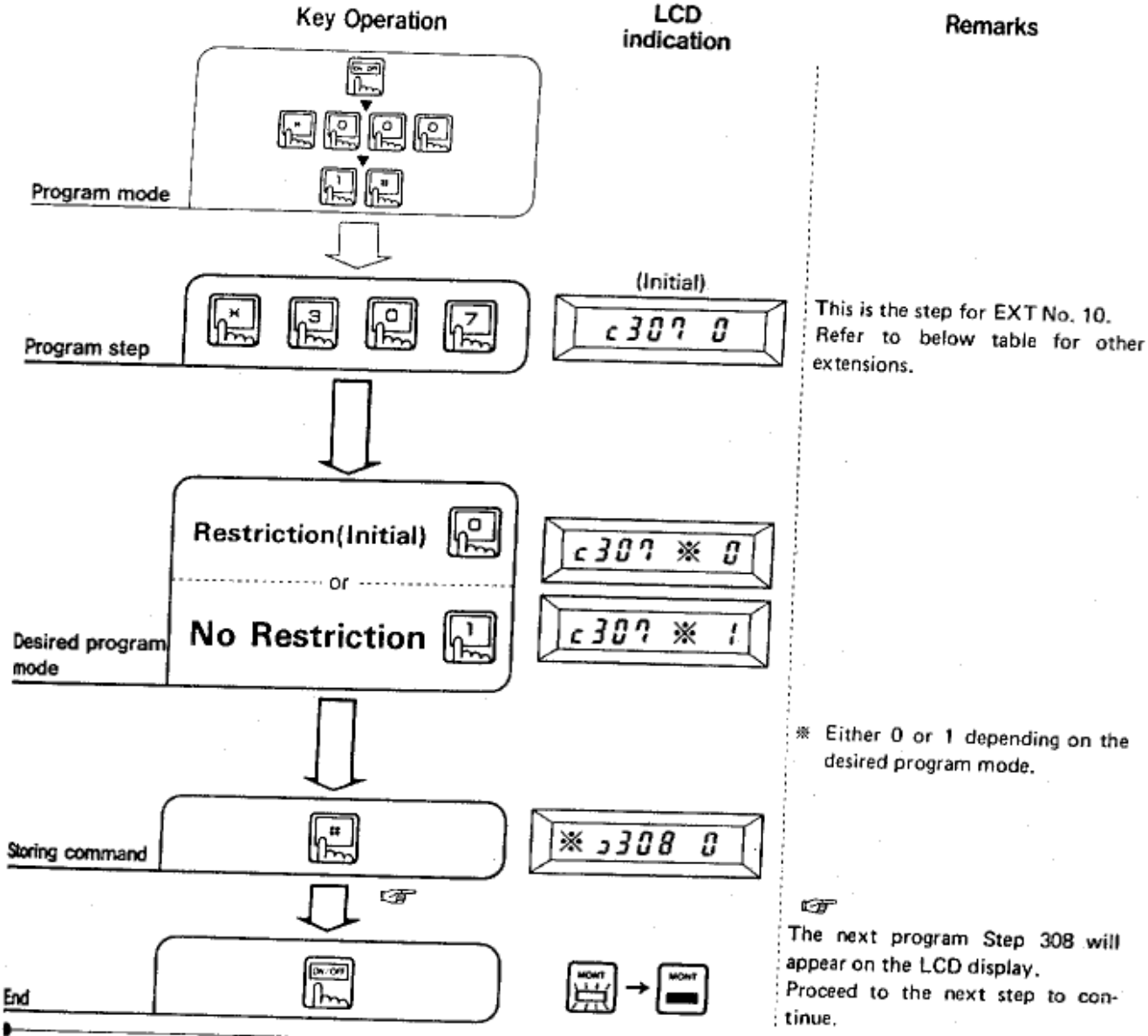
These program steps are made for each extension.

EXT No.	Program step	LCD Indication
10	※306	c306 0
11	※316	c316 0
12	※326	c326 0
13	※336	c336 0
14	※346	c346 0
15	※356	c356 0

EXT No.	Program step	LCD Indication
16	※366	c366 0
17	※376	c376 0
18	※386	c386 0
19	※396	c396 0
20	※406	c406 0
21	※416	c416 0

;stem speed dialing access

Those extensions which are restricted to service class 1 or 2 can have access or can be restricted from having access to the 30-station system speed dialer.



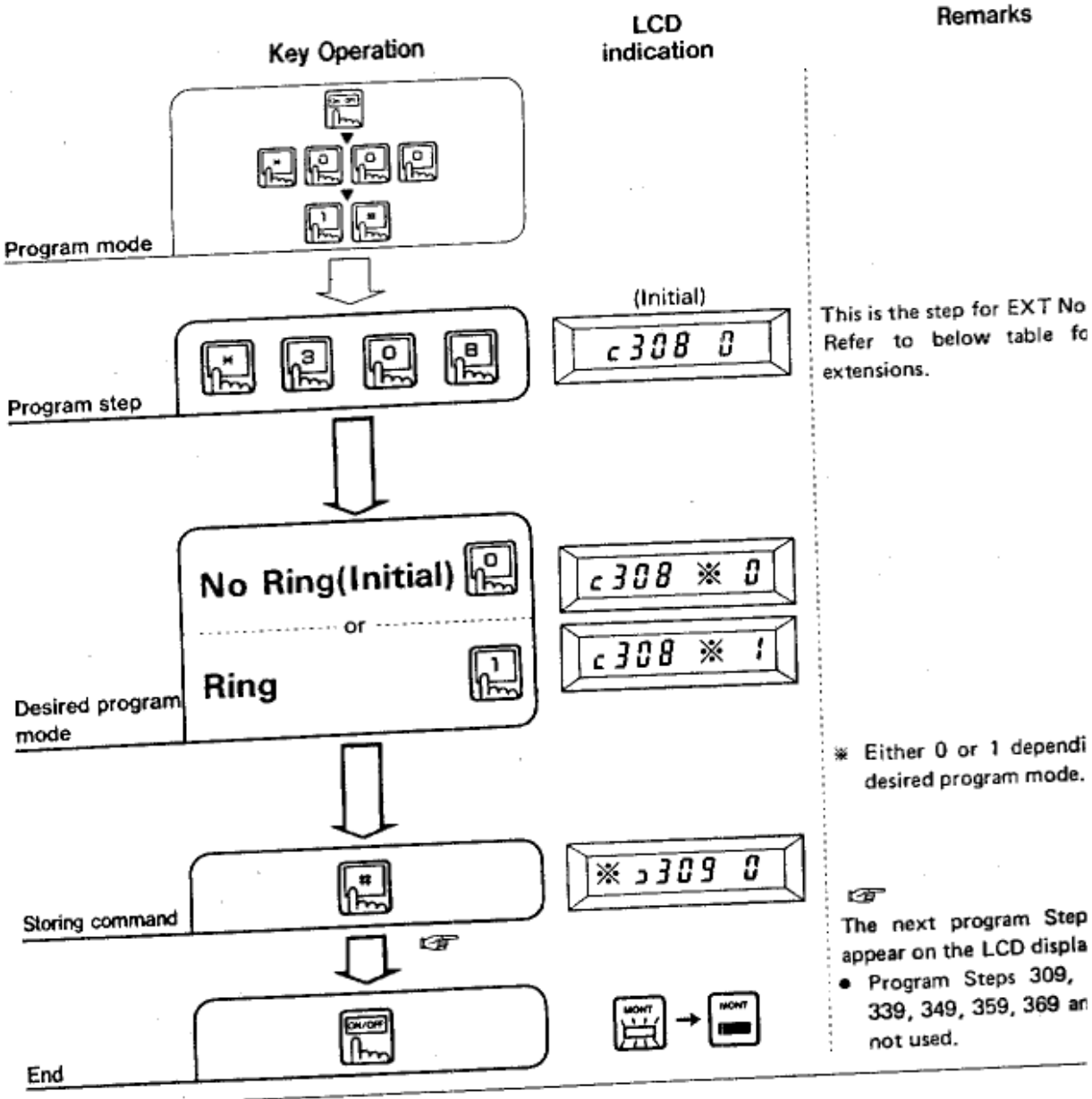
These program steps are made for each extension.

EXT No.	Program step	LCD Indication
10	✱ 3 0 7	c307 0
11	✱ 3 1 7	c311 0
12	✱ 3 2 7	c312 0
3	✱ 3 3 7	c313 0
14	✱ 3 4 7	c314 0
15	✱ 3 5 7	c315 0

EXT No.	Program step	LCD Indication
16	✱ 3 6 7	c316 0
17	✱ 3 7 7	c317 0
18	✱ 3 8 7	c318 0
19	✱ 3 9 7	c319 0
20	✱ 4 0 7	c401 0
21	✱ 4 1 7	c411 0

Off-hook signaling

If you receive an intercom call while you are talking, the call signal will or will not be heard from the speaker



Off-hook signaling

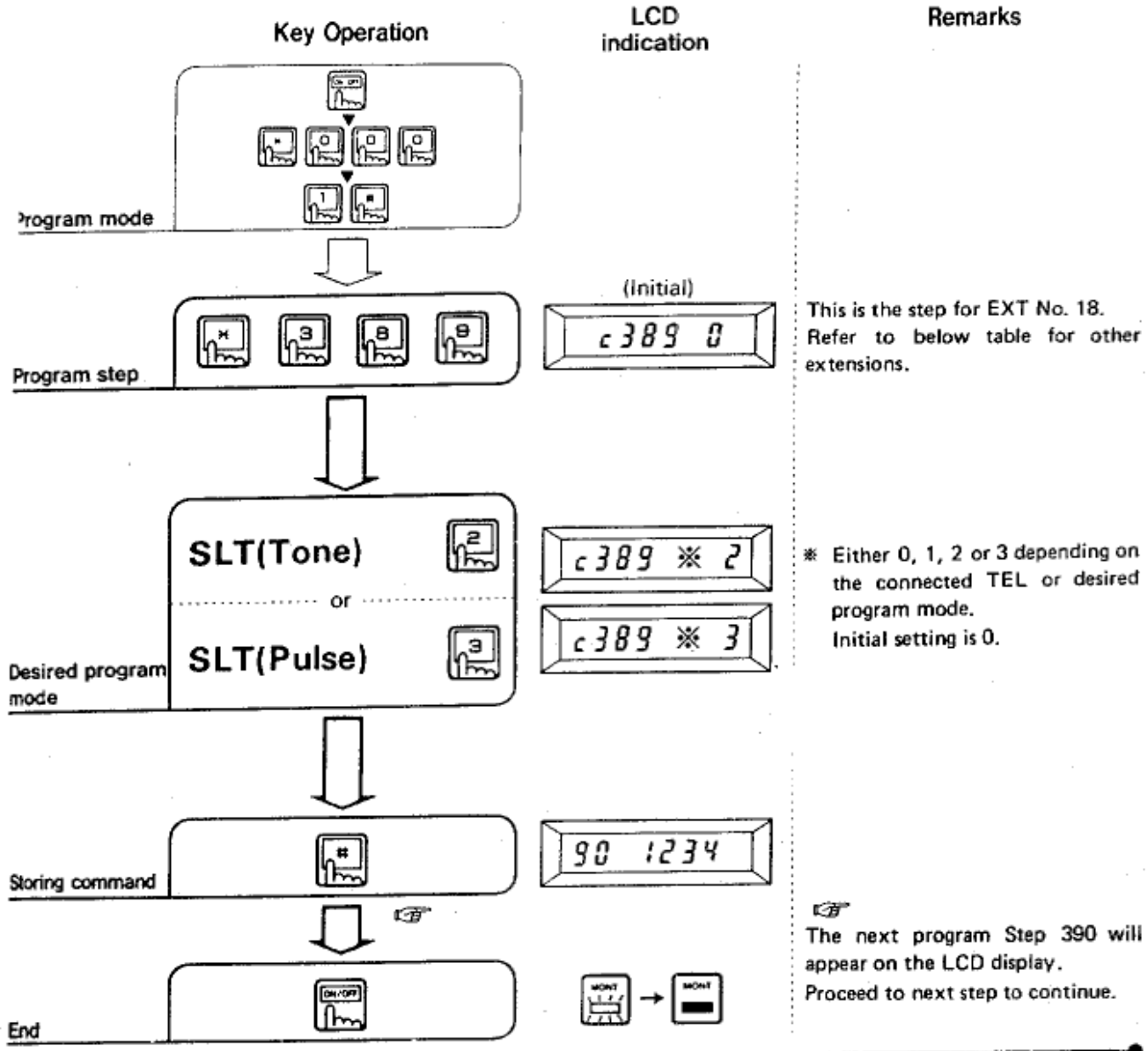
● These program steps are made for each extension.

EXT No.	Program step	LCD Indication
10	✱308	c 308 0
11	✱318	c 318 0
12	✱328	c 328 0
13	✱338	c 338 0
14	✱348	c 348 0
15	✱358	c 358 0

EXT No.	Program step	LCD I
16	✱368	c 3
17	✱378	c 3
18	✱388	c 3
19	✱398	
20	✱408	
21	✱418	

Single line telephone

1 Single line telephones can be designated for extensions No. 18 to 21.
SLT (Tone): When a touch tone telephone is connected.
SLT (Pulse): When a rotary telephone is connected.

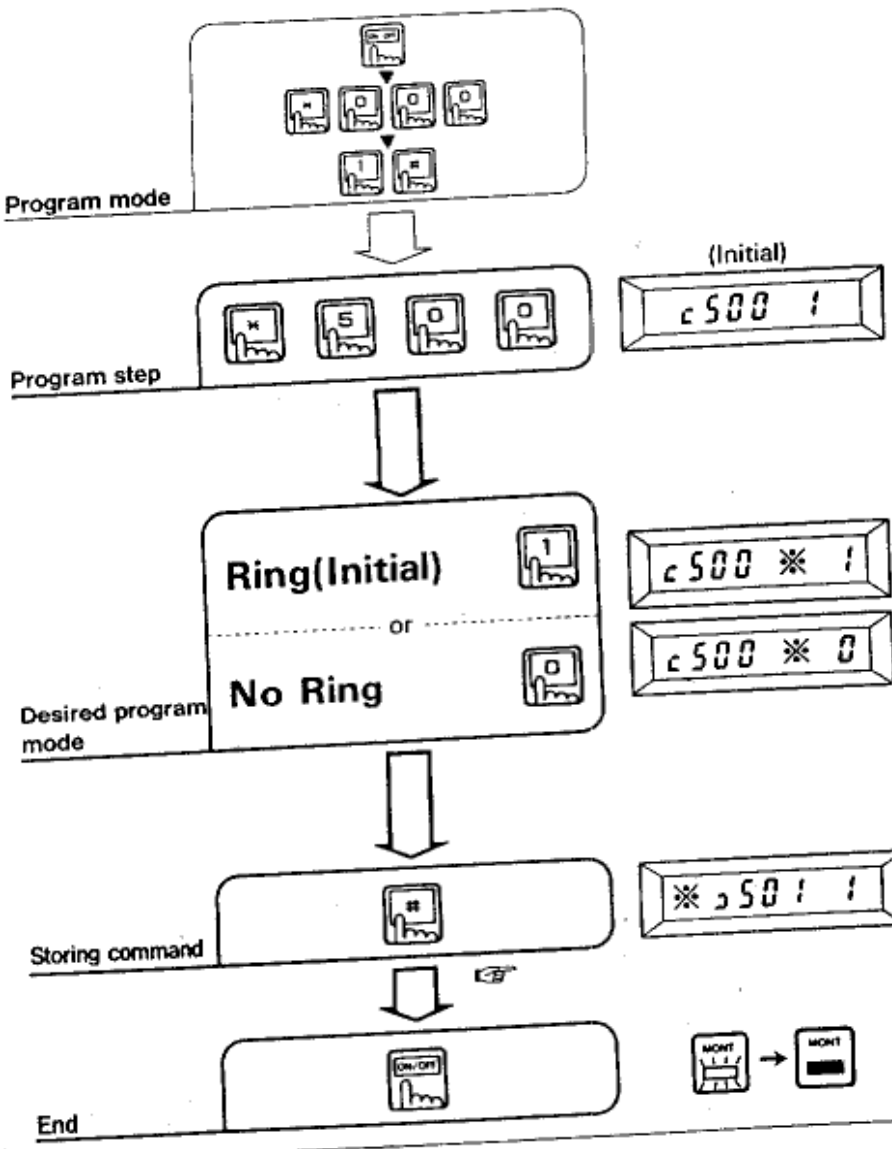


EXT No.	Program step	LCD Indication
18	✱ 3 8 9	c389 0
19	✱ 3 9 9	c399 0
20	✱ 4 0 9	c409 0
21	✱ 4 1 9	c419 0

These program steps are made for extension Step 18 to 21.
The programming should be made with the extension in ascending order (starting from EXT. No. 18).

Paging

To emit all call paging from the extension or not.
No Ring: Paging is excluded. (Can page other extensions)
Ring: The extension receives paging.



● These program steps are made for each extension.

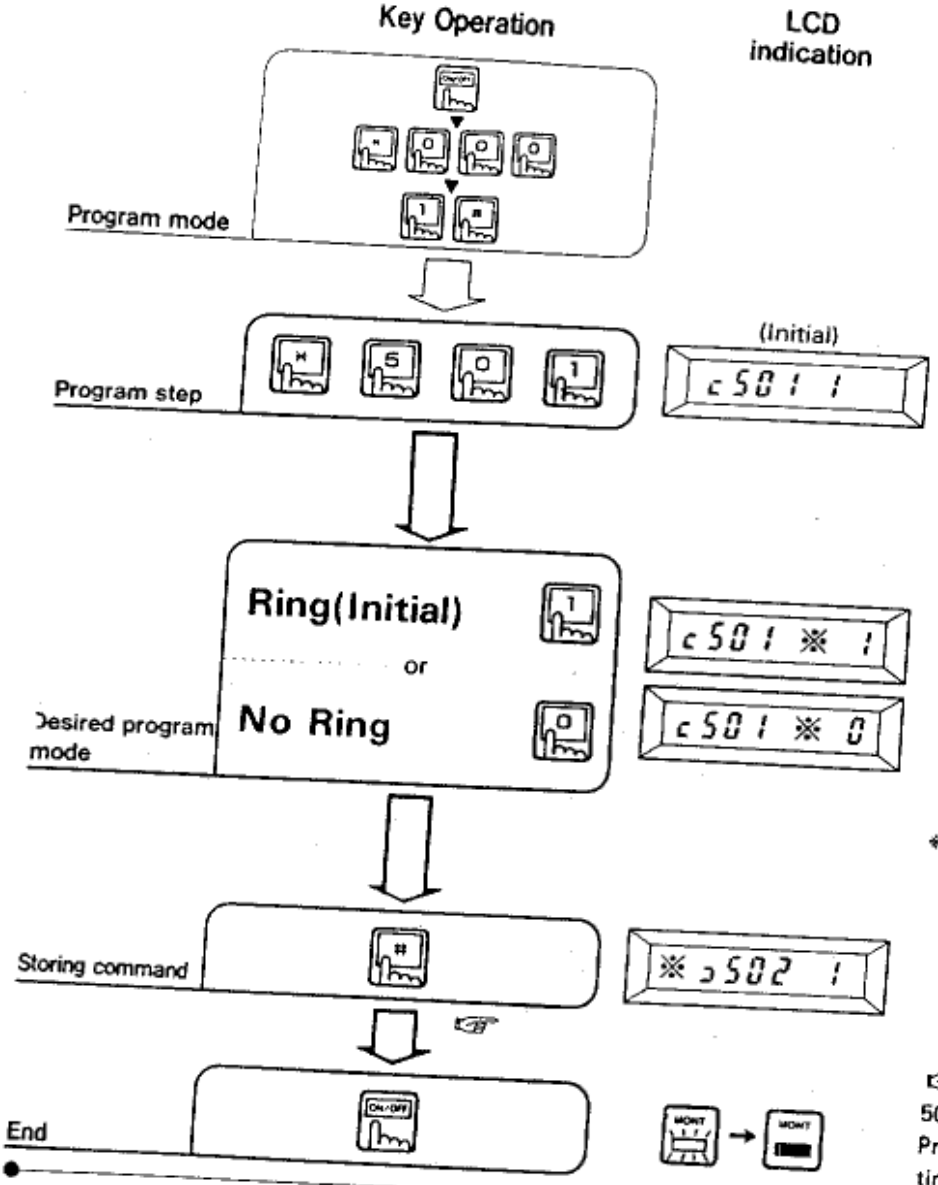
EXT No.	Program step	LCD Indication
10	✳500	c500 1
11	✳510	c510 1
12	✳520	c520 1
13	✳530	c530 1
14	✳540	c540 1
15	✳550	c550 1

EXT No.	Program step	LCD Indicatio
16	✳560	c560
17	✳570	c570
18	✳580	c580
19	✳590	c590
20	✳600	c60
21	✳610	c610

Doorphone A (VA-20861) call

To determine which extensions will ring when to doorphone A is pressed.
Note: At the initial programming, all the extensions will ring.
If all the 14 units are programed, the volume level will be lowered.

Doorphone A programming


Key Operation
LCD indication
Remarks
Program mode
Program step
(Initial)
c501 1
This is the step for EXT No. 10 Refer to the below table for other extensions. At the initial setting, only ext No. 10 rings.
Desired program mode
Ring(Initial)
or
No Ring
c501 ※ 1
c501 ※ 0
※ Either 0 or 1 depending on the desired program mode.
Storing command
※ c502 1
End
502 will appear on the LCD display. Proseed to the next step to continue.

These program steps are made for each extension.

EXT No.	Program step	LCD Indication
10	※ 5 0 1	c501 1
11	※ 5 1 1	c511 1
12	※ 5 2 1	c521 1
13	※ 5 3 1	c531 1
14	※ 5 4 1	c541 1
15	※ 5 5 1	c551 1

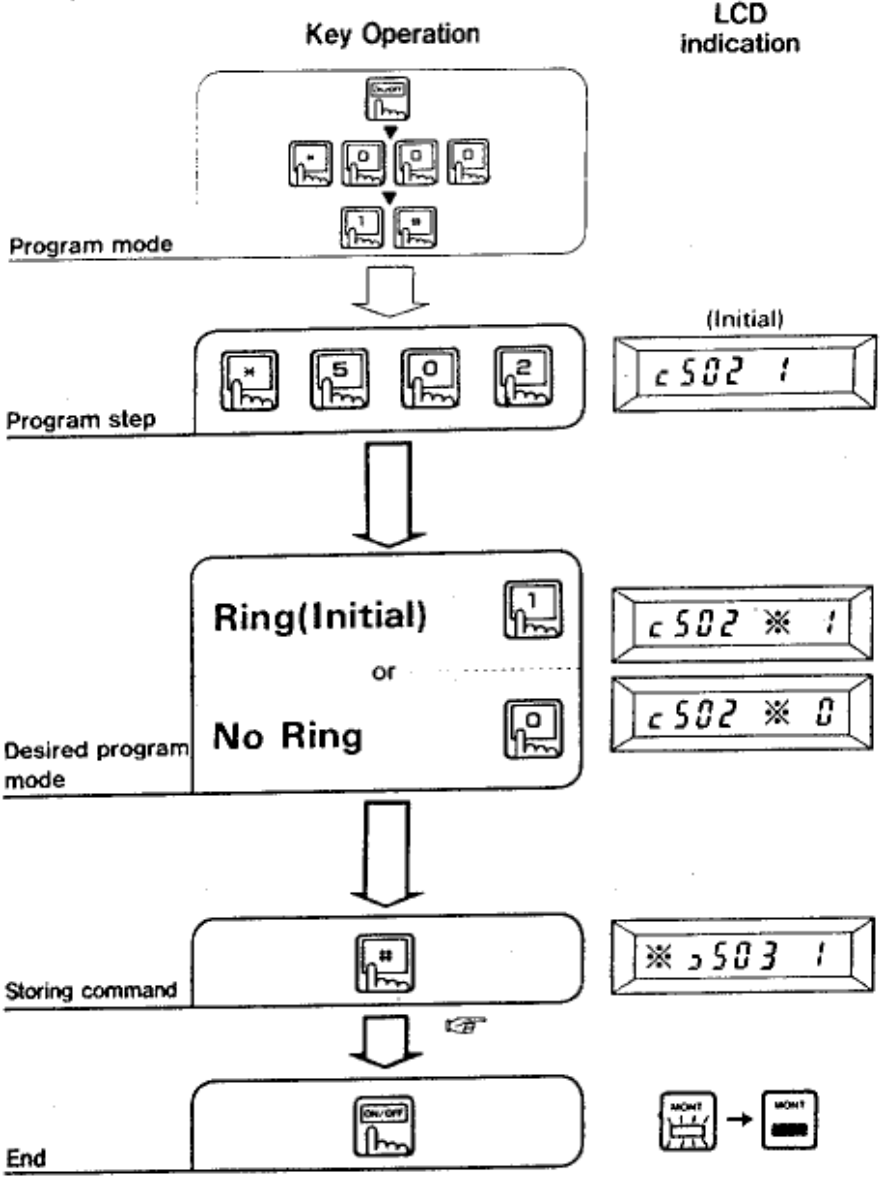
EXT No.	Program step	LCD Indication
16	※ 5 6 1	c561 1
17	※ 5 7 1	c571 1
18	※ 5 8 1	c581 1
19	※ 5 9 1	c591 1
20	※ 6 0 1	c601 1
21	※ 6 1 1	c611 1

Doorphone B (VA-20861) call

To determine which extensions will ring when to doorphone B is pressed.

Note: At the initial programming, all the extensions will ring.
If all the 14 units are programed, the volume level will be lowered.

Doorphone B programming


Key Operation
LCD indication
Remarks
Program mode
Program step
(Initial)
c502 1
This is the step for EXT No. 10 Refer to the below table for other extensions. At the initial setting, only EXT No. 10 rings.
Desired program mode
Ring(Initial)
or
No Ring
c502 ※ 1
c502 ※ 0
※ Either 0 or 1 depending on the desired program mode.
Storing command
※ c503 1
End
503 will appear on the LCD display. Proseed to the next step to continue.

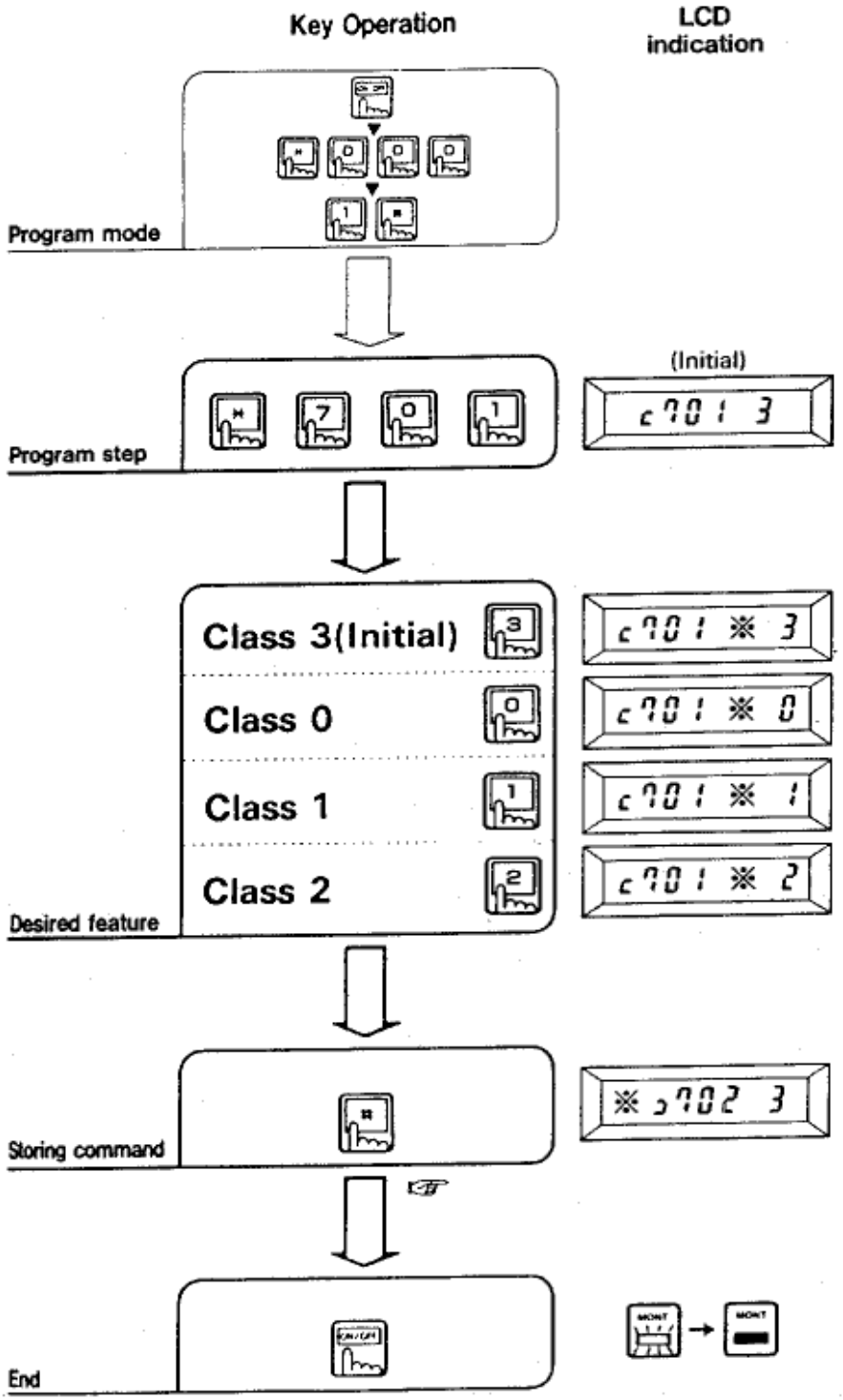
These program steps are made for each extension.

EXT No.	Program step	LCD Indication
10	※ 5 0 2	c502 1
11	※ 5 1 2	c512 1
12	※ 5 2 2	c522 1
13	※ 5 3 2	c532 1
14	※ 5 4 2	c542 1
15	※ 5 5 2	c552 1

EXT No.	Program step	LCD Indication
16	※ 5 6 2	c562 1
17	※ 5 7 2	c572 1
18	※ 5 8 2	c582 1
19	※ 5 9 2	c592 1
20	※ 6 0 2	c602 1
21	※ 6 1 2	c612 1

ervice class of toll restriction

Toll restriction of four classes are programmed.
Class 0: Intercom call only. Class 1: Local calls, 800, 1-800.
Class 2: Local calls and 411, 800, 1-800. Class 3: No restriction.



For EXT No.10

COL	Program step	LCD Indication
1	✱ 7 0 1	c?01 3
2	✱ 7 0 2	c?02 3
3	✱ 7 0 3	c?03 3
4	✱ 7 0 4	c?04 3

※Program step 705 to 710 are not used.

For EXT No.11

COL	Program step	LCD Indication
1	✱ 7 1 1	c?11 3
2	✱ 7 1 2	c?12 3
3	✱ 7 1 3	c?13 3
4	✱ 7 1 4	c?14 3

※Program step 715 to 720 are not used.

For EXT No.12

COL	Program step	LCD Indication
1	✱ 7 2 1	c?21 3
2	✱ 7 2 2	c?22 3
3	✱ 7 2 3	c?23 3
4	✱ 7 2 4	c?24 3

※Program step 725 to 730 are not used.

For EXT No.13

COL	Program step	LCD Indication
1	✱ 7 3 1	c?31 3
2	✱ 7 3 2	c?32 3
3	✱ 7 3 3	c?33 3
4	✱ 7 3 4	c?34 3

※Program step 735 to 740 are not used.

For EXT No.14

COL	Program step	LCD Indication
1	✱ 7 4 1	c?41 3
2	✱ 7 4 2	c?42 3
3	✱ 7 4 3	c?43 3
4	✱ 7 4 4	c?44 3

※Program step 745 to 750 are not used.

For EXT No.15

COL	Program step	LCD Indication
1	✱ 7 5 1	c?51 3
2	✱ 7 5 2	c?52 3
3	✱ 7 5 3	c?53 3
4	✱ 7 5 4	c?54 3

※Program step 755 to 760 are not used.

For EXT No.16

COL	Program step	LCD Indication
1	✱ 7 6 1	c?61 3
2	✱ 7 6 2	c?62 3
3	✱ 7 6 3	c?63 3
4	✱ 7 6 4	c?64 3

※Program step 765 to 770 are not used.

For EXT No.17

COL	Program step	LCD Indication
1	✱ 7 7 1	c?71 3
2	✱ 7 7 2	c?72 3
3	✱ 7 7 3	c?73 3
4	✱ 7 7 4	c?74 3

※Program step 775 to 780 are not used.

For EXT No.18

COL	Program step	LCD Indication
1	✱ 7 8 1	c?81 3
2	✱ 7 8 2	c?82 3
3	✱ 7 8 3	c?83 3
4	✱ 7 8 4	c?84 3

※Program step 785 to 790 are not u

For EXT No.19

COL	Program step	LCD Indication
1	✱ 7 9 1	c?91 3
2	✱ 7 9 2	c?92 3
3	✱ 7 9 3	c?93 3
4	✱ 7 9 4	c?94 3

※Program step 795 to 800 are not used.

For EXT No.20

COL	Program step	LCD Indication
1	✱ 8 0 1	c801 3
2	✱ 8 0 2	c802 3
3	✱ 8 0 3	c803 3
4	✱ 8 0 4	c804 3

※Program step 805 to 810 are not used.

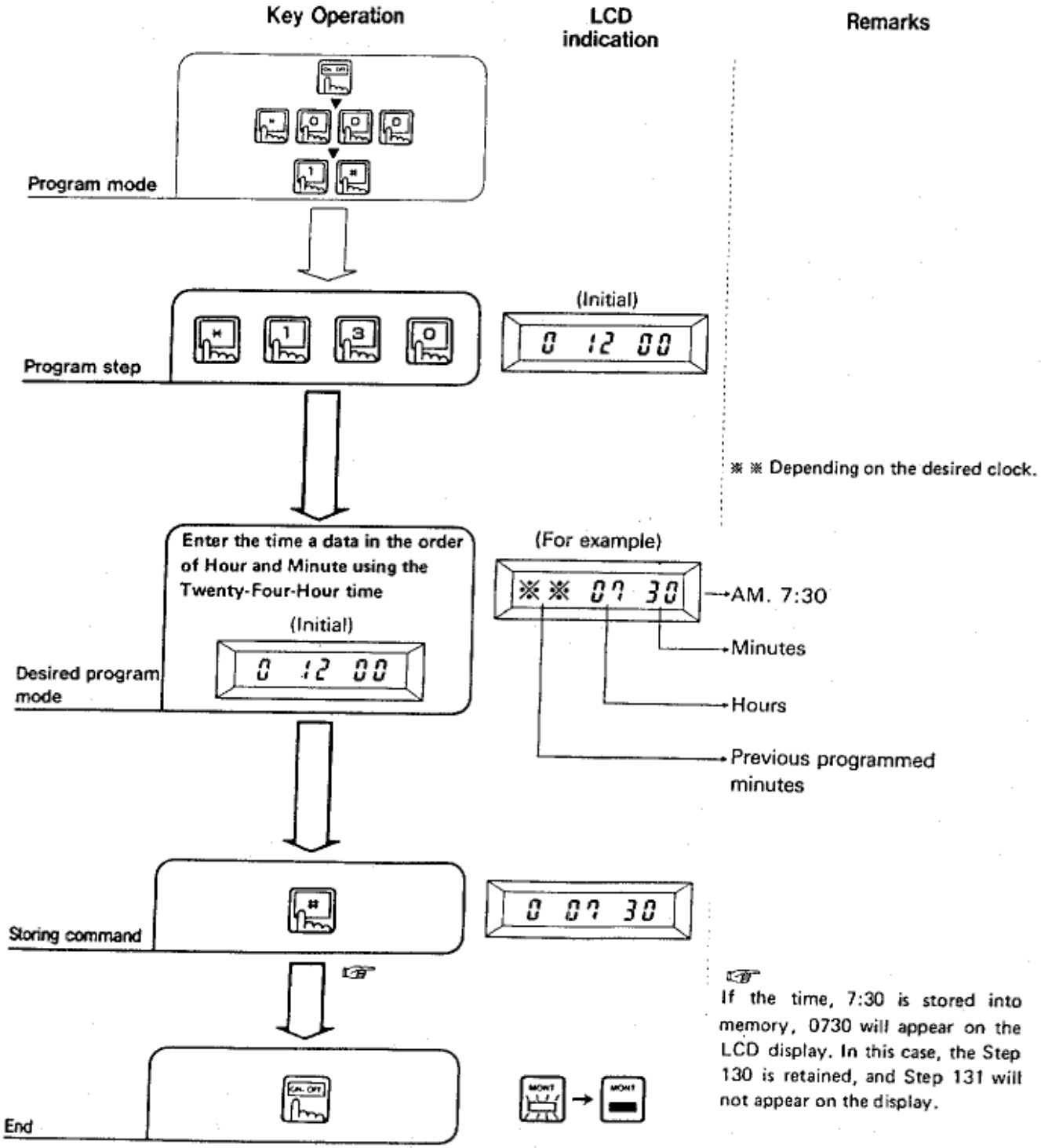
For EXT No.21

COL	Program step	LCD Indication
1	✱ 8 1 1	c811 3
2	✱ 8 1 2	c812 3
3	✱ 8 1 3	c813 3
4	✱ 8 1 4	c814 3

Service class of toll restriction

Display time system setting

This feature allows the time of the key telephones with displays to be changed.
Enter the Twenty-Four-Hour time to set the display time.


Key Operation
LCD indication
Remarks
Program mode
Program step
(Initial)
0 12 00
※※ Depending on the desired clock.
Enter the time a data in the order of Hour and Minute using the Twenty-Four-Hour time
(Initial)
0 12 00
Desired program mode
(For example)
※※ 07 30
AM. 7:30
Minutes
Hours
Previous programmed minutes
Storing command
0 07 30
If the time, 7:30 is stored into memory, 0730 will appear on the LCD display. In this case, the Step 130 is retained, and Step 131 will not appear on the display.
End

APPENDIX····Programming table for initial set

SYSTEM

FEATURE	OPTION SELECTED									
HOLD CALL REMINDER (P40)	NO RECALL		30 SEC.		1 MIN.		2 MIN.			
	*101-0 X		*101-1		*101-2		*101-3			
LONG SPEECH ALARM (P41)	NO ALARM				ALARM					
	*102-0 X				*102-1					
FLASH TIME (P42)	600 mSEC		1 SEC		2 SEC					
	*104-0		*104-1		*104-2 X					
PBX OUTWARD DIALING DIGIT (P43)	*110-	0	1	2	3	4	5	6	7	8	9
TOLL RESTRICTION (P44)	TYPE A				TYPE B					
	*115-0 X				*115-1					
TOLL RESTRICTION CLEAR (Selected area codes allowed) (P45)			No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8
	NO RESTRICTION AREA CODE		*120	*121	*122	*123	*124	*125	*126	*127
	CLEAR		*120-HOLD X	*121-HOLD X	*122-HOLD X	*123-HOLD X	*124-HOLD X	*125-HOLD X	*126-HOLD X	*127-HOLD X

COL (Telephone line)

COL 1

FEATURE	OPTION SELECTED	
TRUNK TONE/ PULSE CONVERSION (P46)	TONE	PULSE
	*211-0 X	*211-1
DIRECT LINE OR PBX (P47)	DIRECT LINE	PBX
	*212-0 X	*212-1
TONE DURATION (P48)	80 mSEC.	160 mSEC.
	*216-0 X	*216-1
INCOMING CALL ALARM (P49)	NO ALARM	ALARM
	*219-0 X	*219-1

COL 2

FEATURE	OPTION SELECTED	
TRUNK TONE/ PULSE CONVERSION (P46)	TONE	PULSE
	*221-0 X	*221-1
DIRECT LINE OR PBX (P47)	DIRECT LINE	PBX
	*222-0 X	*222-1
TONE DURATION (P48)	80 mSEC.	160 mSEC.
	*226-0 X	*226-1
INCOMING CALL ALARM (P49)	NO ALARM	ALARM
	*229-0 X	*229-1

COL 3

FEATURE	OPTION SELECTED	
	TONE	PULSE
TRUNK TONE/ PULSE CONVERSION (P46)	*231-0 X	*231-1
	DIRECT LINE	PBX
DIRECT LINE OR PBX (P47)	*232-0 X	*232-1
	80 mSEC	160 mSEC
TONE DURATION (P48)	*236-0 X	*236-1
	NO ALARM	ALARM
INCOMING CALL ALARM (P49)	*239-0 X	*239-1

COL 4

FEATURE	OPTION SELECTED	
	TONE	PULSE
TRUNK TONE/ PULSE CONVERSION (P46)	*241-0 X	*241-1
	DIRECT LINE	PBX
DIRECT LINE OR PBX (P47)	*242-0 X	*242-1
	80 mSEC	160 mSEC
TONE DURATION (P48)	*246-0 X	*246-1
	NO ALARM	ALARM
INCOMING CALL ALARM (P49)	*249-0 X	*249-1

KEY TELEPHONE

EXTENSION No. 10

FEATURE	OPTION SELECTED				
COL INCOMING RING (P50)	COL 1	COL 2	COL 3	COL 4	CLEAR
	*300-1 X	*300-2 X	*300-3 X	*300-4 X	*300-0
FLEXIBLE NIGHT SERVICE (P51)	NO RING		RING OF NIGHT TRANSFER		
	*301-0		*301-1 X		
FLEXIBLE NIGHT SERVICE SETTING (P52)	NIGHT MODE		NO NIGHT MODE		
	*302-0 X		*302-1		
AUTO ANSWER (P53)	NO AUTO ANSWER		AUTO ANSWER		
	*305-0		*305-1 X		
PRIVACY (P54)	PRIVACY		NO PRIVACY		
	*306-0 X		*306-1		
SYSTEM SPEED DIAL ACCESS (P55)	RESTRICTION		NO RESTRICTION		
	*307-0 X		*307-1		
OFF-HOOK SIGNALING (P56)	NO RING		RING		
	*308-0 X		*308-1		
PAGING (P58)	NO RING		RING		
	*500-0		*500-1 X		
DOORPHONE A CALL (P59)	NO RING		RING		
	*501-0		*501-1 X		
DOORPHONE B CALL (P60)	NO RING		RING		
	*502-0		*502-1 X		
SERVICE CLASS OF RESTRICTION (P61)	CLASS 0		CLASS 1	CLASS 2	CLASS 3
	COL 1	*701-0	*701-1	*701-2	*701-3 X
	COL 2	*702-0	*702-1	*702-2	*702-3 X
	COL 3	*703-0	*703-1	*703-2	*703-3 X
	COL 4	*704-0	*704-1	*704-2	*704-3 X

EXTENSION No. 11

FEATURE	OPTION SELECTED				
COL INCOMING RING (P50)	COL 1	COL 2	COL 3	COL 4	CLEAR
	*310-1 X	*310-2 X	*310-3 X	*310-4 X	*310-0
FLEXIBLE NIGHT SERVICE (P51)	NO RING		RING OF NIGHT TRANSFER		
	*311-0		*311-1 X		
FLEXIBLE NIGHT SERVICE SETTING (P52)	NIGHT MODE		NO NIGHT MODE		
	*312-0 X		*312-1		
COL AUTO ANSWER (P53)	NO AUTO ANSWER		AUTO ANSWER		
	*315-0		*315-1 X		
PRIVACY (P54)	PRIVACY		NO PRIVACY		
	*316-0 X		*316-1		
SYSTEM SPEED DIAL ACCESS (P55)	RESTRICTION		NO RESTRICTION		
	*317-0 X		*317-1		
OFF-HOOK SIGNALING (P56)	NO RING		RING		
	*318-0 X		*318-1		
PAGING (P58)	NO RING		RING		
	*510-0		*510-1 X		
DOORPHONE A CALL (P59)	NO RING		RING		
	*511-0		*511-1 X		
DOORPHONE B CALL (P60)	NO RING		RING		
	*512-0		*512-1 X		
SERVICE CLASS OF TOLL RESTRICTION (P61)	CLASS 0		CLASS 1	CLASS 2	CLASS 3
	COL 1	*711-0	*711-1	*711-2	*711-3 X
	COL 2	*712-0	*712-1	*712-2	*712-3 X
	COL 3	*713-0	*713-1	*713-2	*713-3 X
	COL 4	*714-0	*714-1	*714-2	*714-3 X

EXTENSION No. 12

FEATURE	OPTION SELECTED				
	COL 1	COL 2	COL 3	COL 4	CLEAR
COL INCOMING RING (P50)	*320-1 X	*320-2 X	*320-3 X	*320-4 X	*320-0
FLEXIBLE NIGHT SERVICE (P51)	NO RING: *321-0			RING OF NIGHT TRANSFER: *321-1 X	
FLEXIBLE NIGHT SERVICE SETTING (P52)	NIGHT MODE: *322-0 X			NO NIGHT MODE: *322-1	
AUTO ANSWER (P53)	NO AUTO ANSWER: *325-0			AUTO ANSWER: *325-1 X	
PRIVACY (P54)	PRIVACY: *326-0 X			NO PRIVACY: *326-1	
SYSTEM SPEED DIAL ACCESS (P55)	RESTRICTION: *327-0 X			NO RESTRICTION: *327-1	
OFF-HOOK SIGNALING (P56)	NO RING: *328-0 X			RING: *328-1	
PAGING (P58)	NO RING: *520-0			RING: *520-1 X	
DOORPHONE A CALL (P59)	NO RING: *521-0			RING: *521-1 X	
DOORPHONE B CALL (P60)	NO RING: *522-0			RING: *522-1 X	
VICE CLASS OF L RESTRICTION (P61)	CLASS 0		CLASS 1	CLASS 2	CLASS 3
	COL 1	*721-0	*721-1	*721-2	*721-3 X
	COL 2	*722-0	*722-1	*722-2	*722-3 X
	COL 3	*723-0	*723-1	*723-2	*723-3 X
	COL 4	*724-0	*724-1	*724-2	*724-3 X

EXTENSION No. 13

FEATURE	OPTION SELECTED				
	COL 1	COL 2	COL 3	COL 4	CLEAR
COL INCOMING RING (P50)	*330-1 X	*330-2 X	*330-3 X	*330-4 X	*330-0
FLEXIBLE NIGHT SERVICE (P51)	NO RING: *331-0			RING OF NIGHT TRANSFER: *331-1 X	
FLEXIBLE NIGHT SERVICE SETTING (P52)	NIGHT MODE: *332-0 X			NO NIGHT MODE: *332-1	
COL AUTO ANSWER (P53)	NO AUTO ANSWER: *335-0			AUTO ANSWER: *335-1 X	
PRIVACY (P54)	PRIVACY: *336-0 X			NO PRIVACY: *336-1	
SYSTEM SPEED DIAL ACCESS (P55)	RESTRICTION: *337-0 X			NO RESTRICTION: *337-1	
OFF-HOOK SIGNALING (P56)	NO RING: *338-0 X			RING: *338-1	
PAGING (P58)	NO RING: *530-0			RING: *530-1 X	
DOORPHONE A CALL (P59)	NO RING: *531-0			RING: *531-1 X	
DOORPHONE B CALL (P60)	NO RING: *532-0			RING: *532-1 X	
SERVICE CLASS OF TOLL RESTRICTION (P61)	CLASS 0		CLASS 1	CLASS 2	CLASS 3
	COL 1	*731-0	*731-1	*731-2	*731-3 X
	COL 2	*732-0	*732-1	*732-2	*732-3 X
	COL 3	*733-0	*733-1	*733-2	*733-3 X
	COL 4	*734-0	*734-1	*734-2	*734-3 X

EXTENSION No. 14

FEATURE	OPTION SELECTED				
COL INCOMING RING (P50)	COL 1	COL 2	COL 3	COL 4	CLEAR
	*340-1 X	*340-2 X	*340-3 X	*340-4 X	*340-0
FLEXIBLE NIGHT SERVICE (P51)	NO RING		RING OF NIGHT TRANSFER		
	*341-0		*341-1 X		
FLEXIBLE NIGHT SERVICE SETTING (P52)	NIGHT MODE		NO NIGHT MODE		
	*342-0 X		*342-1		
COL AUTO ANSWER (P53)	NO AUTO ANSWER		AUTO ANSWER		
	*345-0		*345-1 X		
PRIVACY (P54)	PRIVACY		NO PRIVACY		
	*346-0 X		*346-1		
SYSTEM SPEED DIAL ACCESS (P55)	RESTRICTION		NO RESTRICTION		
	*347-0 X		*347-1		
OFF-HOOK SIGNALING (P56)	NO RING		RING		
	*348-0 X		*348-1		
PAGING (P58)	NO RING		RING		
	*540-0		*540-1 X		
DOORPHONE A CALL (P59)	NO RING		RING		
	*541-0		*541-1 X		
DOORPHONE B CALL (P60)	NO RING		RING		
	*542-0		*542-1 X		
SERVICE CLASS OF TOLL RESTRICTION (P61)	CLASS 0		CLASS 1	CLASS 2	CLASS 3
	COL 1	*741-0	*741-1	*741-2	*741-3 X
	COL 2	*742-0	*742-1	*742-2	*742-3 X
	COL 3	*743-0	*743-1	*743-2	*743-3 X
	COL 4	*744-0	*744-1	*744-2	*744-3 X

EXTENSION No. 15

FEATURE	OPTION SELECTED				
	COL 1	COL 2	COL 3	COL 4	CLEAR
COL INCOMING RING (P50)	*350-1 X	*350-2 X	*350-3 X	*350-4 X	*350-0
FLEXIBLE NIGHT SERVICE (P51)	NO RING: *351-0			RING OF NIGHT TRANSFER: *351-1 X	
FLEXIBLE NIGHT SERVICE SETTING (P52)	NIGHT MODE: *352-0 X			NO NIGHT MODE: *352-1	
COL AUTO ANSWER (P53)	NO AUTO ANSWER: *355-0			AUTO ANSWER: *355-1 X	
PRIVACY (P54)	PRIVACY: *356-0 X			NO PRIVACY: *356-1	
SYSTEM SPEED DIAL ACCESS (P55)	RESTRICTION: *357-0 X			NO RESTRICTION: *357-1	
OFF-HOOK SIGNALING (P56)	NO RING: *358-0 X			RING: *358-1	
PAGING (P58)	NO RING: *550-0			RING: *550-1 X	
DOORPHONE A CALL (P59)	NO RING: *551-0			RING: *551-1 X	
DOORPHONE B CALL (P60)	NO RING: *552-0			RING: *522-1 X	
SERVICE CLASS OF TOLL RESTRICTION (P61)	CLASS 0		CLASS 1	CLASS 2	CLASS 3
	COL 1	*751-0	*751-1	*751-2	*751-3 X
	COL 2	*752-0	*752-1	*752-2	*752-3 X
	COL 3	*753-0	*753-1	*753-2	*753-3
	COL 4	*754-0	*754-1	*754-2	*754-3 X

EXTENSION No. 16

FEATURE	OPTION SELECTED				
COL INCOMING RING (P50)	COL 1	COL 2	COL 3	COL 4	CLEAR
	*360-1 X	*360-2 X	*360-3 X	*360-4 X	*360-0
FLEXIBLE NIGHT SERVICE (P51)	NO RING		RING OF NIGHT TRANSFER		
	*361-0		*361-1 X		
FLEXIBLE NIGHT SERVICE SETTING (P52)	NIGHT MODE		NO NIGHT MODE		
	*362-0 X		*362-1		
COL AUTO ANSWER (P53)	NO AUTO ANSWER		AUTO ANSWER		
	*365-0		*365-1 X		
PRIVACY (P54)	PRIVACY		NO PRIVACY		
	*366-0 X		*366-1		
SYSTEM SPEED DIAL ACCESS (P55)	RESTRICTION		NO RESTRICTION		
	*367-0 X		*367-1		
OFF-HOOK SIGNALING (P56)	NO RING		RING		
	*368-0 X		*368-1		
PAGING (P58)	NO RING		RING		
	*560-0		*560-1 X		
DOORPHONE A CALL (P59)	NO RING		RING		
	*561-0		*561-1 X		
DOORPHONE B CALL (P60)	NO RING		RING		
	*562-0		*562-1 X		
SERVICE CLASS OF TOLL RESTRICTION (P61)	CLASS 0		CLASS 1	CLASS 2	CLASS 3
	COL 1	*761-0	*761-1	*761-2	*761-3 X
	COL 2	*762-0	*762-1	*762-2	*762-3 X
	COL 3	*763-0	*763-1	*763-2	*763-3 X
	COL 4	*764-0	*764-1	*764-2	*764-3 X

EXTENSION No. 17

FEATURE	OPTION SELECTED				
	COL 1	COL 2	COL 3	COL 4	CLEAR
COL INCOMING RING (P50)	*370-1 X	*370-2 X	*370-3 X	*370-4 X	*370-0
FLEXIBLE NIGHT SERVICE (P51)	NO RING: *371-0			RING OF NIGHT TRANSFER: *371-1 X	
FLEXIBLE NIGHT SERVICE SETTING (P52)	NIGHT MODE: *372-0 X			NO NIGHT MODE: *372-1	
COL AUTO ANSWER (P53)	NO AUTO ANSWER: *375-0			AUTO ANSWER: *375-1 X	
PRIVACY (P54)	PRIVACY: *376-0 X			NO PRIVACY: *376-1	
SYSTEM SPEED DIAL ACCESS (P55)	RESTRICTION: *377-0 X			NO RESTRICTION: *377-1	
OFF-HOOK SIGNALING (P56)	NO RING: *378-0 X			RING: *378-1	
PAGING (P58)	NO RING: *570-0			RING: *570-1 X	
DOORPHONE A CALL (P59)	NO RING: *571-0			RING: *571-1 X	
DOORPHONE B CALL (P60)	NO RING: *572-0			RING: *572-1 X	

SERVICE CLASS OF TOLL RESTRICTION (P61)	CLASS 0	CLASS 1	CLASS 2	CLASS 3
COL 1	*771-0	*771-1	*771-2	*771-3 X
COL 2	*772-0	*772-1	*772-2	*772-3 X
COL 3	*773-0	*773-1	*773-2	*773-3 X
COL 4	*774-0	*774-1	*774-2	*774-3 X

EXTENSION No. 18

FEATURE	OPTION SELECTED				
	COL 1	COL 2	COL 3	COL 4	CLEAR
COL INCOMING RING (P50)	*380-1 X	*380-2 X	*380-3 X	*380-4 X	*380-0
FLEXIBLE NIGHT SERVICE (P51)	NO RING: *381-0			RING OF NIGHT TRANSFER: *381-1 X	
FLEXIBLE NIGHT SERVICE SETTING (P52)	NIGHT MODE: *382-0 X			NO NIGHT MODE: *382-1	
COL AUTO ANSWER (P53)	NO AUTO ANSWER: *385-0			AUTO AUSWER: *385-1 X	
PRIVACY (P54)	PRIVACY: *386-0 X			NO PRIVACY: *386-1	
SYSTEM SPEED DIAL ACCESS (P55)	RESTRICTION: *387-0 X			NO RESTRICTION: *387-1	
OFF-HOOK SIGNALING (P56)	NO RING: *388-0 X			RING: *388-1	
TYPES OF KEY TELEPHONES (P57)	TONE: *389-2			PULSE: *389-3 When Standard TEL/SP or TEL with display is connected, automaticaly set.	
PAGING (P58)	NO RING: *580-0			RING: *580-1 X	
DOORPHONE A CALL (P59)	NO RING: *581-0			RING: *581-1 X	
DOORPHONE B CALL (P60)	NO RING: *582-0			RING: *582-1 X	
SERVICE CLASS OF TOLL RESTRICTION (P61)		CLASS 0	CLASS 1	CLASS 2	CLASS 3
	COL 1	*781-0	*781-1	*781-2	*781-3 X
	COL 2	*782-0	*782-1	*782-2	*782-3 X
	COL 3	*783-0	*783-1	*783-2	*783-3 X
	COL 4	*784-0	*784-1	*784-2	*784-3 X

EXTENSION No. 19

FEATURE	OPTION SELECTED				
	COL 1	COL 2	COL 3	COL 4	CLEAR
COL INCOMING RING (P50)	*390-1 X	*390-2 X	*390-3 X	*390-4 X	*390-0
FLEXIBLE NIGHT SERVICE (P51)	NO RING: *391-0		RING OF NIGHT TRANSFER: *391-1 X		
FLEXIBLE NIGHT SERVICE SETTING (P52)	NIGHT MODE: *392-0 X		NO NIGHT MODE: *392-1		
COL AUTO ANSWER (P53)	NO AUTO ANSWER: *395-0		AUTO AUSWER: *395-1 X		
PRIVACY (P54)	PRIVACY: *396-0 X		NO PRIVACY: *396-1		
SYSTEM SPEED DIAL ACCESS (P55)	RESTRICTION: *397-0 X		NO RESTRICTION: *397-1		
OFF-HOOK SIGNALING (P56)	NO RING: *398-0 X		RING: *398-1		
TYPES OF KEY TELEPHONES (P57)	TONE: *399-2		PULSE: *399-3 When Standard TEL/SP or TEL with display is connected, automaticaly set.		
PAGING (P58)	NO RING: *590-0		RING: *590-1 X		
DOORPHONE A CALL (P59)	NO RING: *591-0		RING: *591-1 X		
DOORPHONE B CALL (P60)	NO RING: *592-0		RING: *592-1 X		
SERVICE CLASS OF TOLL RESTRICTION (P61)		CLASS 0	CLASS 1	CLASS 2	CLASS 3
	COL 1	*791-0	*791-1	*791-2	*791-3 X
	COL 2	*792-0	*792-1	*792-2	*792-3 X
	COL 3	*793-0	*793-1	*793-2	*793-3 X
	COL 4	*794-0	*794-1	*794-2	*794-3 X

EXTENSION No. 20

FEATURE	OPTION SELECTED				
COL INCOMING RING (P50)	COL 1	COL 2	COL 3	COL 4	CLEAR
	*400-1 X	*400-2 X	*400-3 X	*400-4 X	*400-0
FLEXIBLE NIGHT SERVICE (P51)	NO RING		RING OF NIGHT TRANSFER		
	*401-0		*401-1 X		
FLEXIBLE NIGHT SERVICE SETTING (P52)	NIGHT MODE		NO NIGHT MODE		
	*402-0 X		*402-1		
AUTO ANSWER (P53)	NO AUTO ANSWER		AUTO AUSWER		
	*405-0		*405-1 X		
PRIVACY (P54)	PRIVACY		NO PRIVACY		
	*406-0 X		*406-1		
SYSTEM SPEED DIAL ACCESS (P55)	RESTRICTION		NO RESTRICTION		
	*407-0 X		*407-1		
OFF-HOOK SIGNALING (P56)	NO RING		RING		
	*408-0 X		*408-1		
TYPES OF KEY TELEPHONES (P57)	TONE		PULSE		
	*409-2		*409-3 When Standard TEL/SP or TEL with display is connected, automaticaly set.		
PAGING (P58)	NO RING		RING		
	*600-0		*600-1 X		
DOORPHONE A CALL (P59)	NO RING		RING		
	*601-0		*601-1 X		
DOORPHONE B CALL (P60)	NO RING		RING		
	*602-0		*602-1 X		
SERVICE CLASS OF RESTRICTION (P61)	CLASS 0	CLASS 1	CLASS 2	CLASS 3	
	COL 1 *801-0	*801-1	*801-2	*801-3 X	
	COL 2 *802-0	*802-1	*802-2	*802-3 X	
	COL 3 *803-0	*803-1	*803-2	*803-3 X	
	COL 4 *804-0	*804-1	*804-2	*804-3 X	

EXTENSION No. 21

FEATURE	OPTION SELECTED				
	COL 1	COL 2	COL 3	COL 4	CLEAR
COL INCOMING RING (P50)	*410–1 X	*410–2 X	*410–3 X	*410–4 X	*410–0
FLEXIBLE NIGHT SERVICE (P51)	NO RING: *411–0			RING OF NIGHT TRANSFER: *411–1 X	
FLEXIBLE NIGHT SERVICE SETTING (P52)	NIGHT MODE: *412–0 X			NO NIGHT MODE: *412–1	
COL AUTO ANSWER (P53)	NO AUTO ANSWER: *415–0			AUTO AUSWER: *415–1 X	
PRIVACY (P54)	PRIVACY: *416–0 X			NO PRIVACY: *416–1	
SYSTEM SPEED DIAL ACCESS (P55)	RESTRICTION: *417–0 X			NO RESTRICTION: *417–1	
OFF-HOOK SIGNALING (P56)	NO RING: *418–0 X			RING: *418–1	
TYPES OF KEY TELEPHONES (P57)	TONE: *419–2			PULSE: *419–3	
	When Standard TEL/SP or TEL with display is connected, automaticaly set.				
PAGING (P58)	NO RING: *610–0			RING: *610–1 X	
DOORPHONE A CALL (P59)	NO RING: *611–0			RING: *611–1 X	
DOORPHONE B CALL (P60)	NO RING: *612–0			RING: *612–1 X	
SERVICE CLASS OF TOLL RESTRICTION (P61)		CLASS 0	CLASS 1	CLASS 2	CLASS 3
	COL 1	*811–0	*811–1	*811–2	*811–3 X
	COL 2	*812–0	*812–1	*812–2	*812–3 X
	COL 3	*813–0	*813–1	*813–2	*813–3 X
	COL 4	*814–0	*814–1	*814–2	*814–3 X

Feature explanation

COL auto answering
An incoming call can be answered automatically only by picking up the handset.

COL incoming ring
Usually all telephone receive all incoming calls, to de-activate the ringing tone for selected central office lines, use this feature.

Privacy
A third party may interrupt or join a conversation.

Trunk tone/pulse conversion
You can choose either pulse or tone dialing mode for central office line.

Tone duration
This is to the length of the tone signal sent during dialing.

Display time system setting
When a key telephone with a display is used, the display time can be changed.

Flash time
When the FLASH button is pressed, the time that the line is cut is equal to the time it is cut by rapidly pressing the hook switch once.

Hold call reminder
When the phone is in the hold mode, the phone will ring to remind you.

oming call alarm
If there is a delay in replying to an arriving call, an alarm tone is sounded at all telephones.

Off-hook signaling
If you are already talking to someone and another intercom number calls you, busy tone is emitted.

Long speech alarm
An alarm tone will sound every three minutes from the beginning of an outgoing call.

Flexible night service
When the night mode is set, incoming ringing tone is not sounded.

Flexible night service setting
The night mode may be set from a telephone.

Toll restriction clear (selected area codes allowed)
When the call restriction is set, the restriction is released by means of this function.

System speed dialing access
This feature determines whether or not a telephone may use the stored system speed numbers.

Paging
If an external paging unit is connected, it allows a simultaneous call through the telephone.

Single line telephone
The dialing mode of single line telephone that can be connected to the system.

Direct line or PBX
The kind of line in this system allows it to be connected with either a central office or private branch exchange line.

restriction
The type service is dependent upon the long distance plan of your local area.